S2915-1

The 65th Annual Report and Farm Facts

This record of significant agricultural developments in Kansas during 1981 is respectfully submitted to the governor and the legislature of the state. A record of Kansas agriculture maintained in reports issued by the Board continuously since 1877 is brought to date with this publication covering the calendar year of 1981.

Harland E. Priddle
Kansas Secretary of Agriculture

M. E. Johnson
State Statistician

The Cover . . .

Sunrise to sunset, it s hard to find a prettier sight than one of Kansas' many ponds and reservoirs. In addition to providing beauty, Kansas surface water is a valuable resource. This year's report of the water resources division, page 49, contains a history of Kansas water laws.

On the front cover, the sun rises over Pomona Reservoir. The photograph was taken by Lee Rolfs, attorney of the Board of Agriculture's water resources division, for whom photography is a hobby.

The back cover, of Indian grass at Coldwater Lake, is the work of William L. Sheppard, RC & D coordinator with the Soil Conservation Service at Harper. Sheppard's photographs of Kansas and the American West have been exhibited at locations across the state.

Thanks for other photographs printed in this volume go to Kansas Farmer Magazine, KSU Extension, Kansas Pork Producers Council, Kansas 4-H, Kansas State Fair, Kansas Farm Bureau, and other Kansans, and employees of the Kansas State Board of Agriculture.

Kansas State
Board of Agriculture

THE BOARD OF AGRICULTURE

JACK BEAUCHAMP	Ottawa
F. E. BLISS	Longton
FLOYD O. COEN	Elkhart
ALVIN EPLER	Hollowell
ALTIS FERREE	Yates Center
CHARLES HAMON	Valley Falls
GAYLORD R. MUNSON	Junction City
JOHN C. OSWALD	Hutchinson
DAVID M. SCHURLE	Manhattan
DUANE STEEPLES	Zurich
ROBERT TEAGARDEN	La Cygne
HOWARD C. WILSON	Sharon Springs

Pictured left to right are Board of Agriculture members (seated) Howard Wilson, Sharon Springs; Alvin Epler, Hollowell; Robert Teagarden, La Cygne; F. E. Bliss, Longton; Secretary of Agriculture Harland Priddle, Topeka; (standing) Duane Steeples, Zurich; David Schurle, Manhattan; John Oswald, Hutchinson; Floyd Coen, Elkhart; Charles Hamon, Valley Falls; Altis Ferree, Yates Center; Jack Beauchamp, Ottawa; and Gaylord Munson, Junction City.

Officers of the Board of Agriculture for 1982-83 are (standing, left to right) Secretary Harland E. Priddle; Alvin Epler, treasurer; and F. E. Bliss, vice president. President Robert Teagarden is seated.

Board of Agriculture Administration

Harland E. Priddle	Secretary
Donald L. Jacka	Assistant Secretary
Kenneth M. Wilke	Attorney
Lee Rolfs	Attorney
Carole Jordan	Public Information Officer
Galen Swenson	Coordinator, Grain Marketing Commissions
Robert H. Guntert	Director, Control Division
Brace Rowley	Dairy Commissioner, Dairy Division
Dean Garwood	Director, Entomology Division
Ken Boughton	Director, Marketing Division
Larry Woodson	Director, Meat and Poultry Inspection Division
M. E. Johnson	State Statistician, Statistical Division
Guy Gibson	Chief Engineer, Water Resources Division
Freeman Biery	Director, Weed and Pesticide Division
John O'Neill	State Sealer, Weights and Measures Division

The offices of the Kansas State Board of Agriculture are located at 109 S.W. 9th St., Topeka, Kansas 66612-1280. The statistical division is at 444 S.E. Quincy, Topeka, Kan. 66683.

CONTENTS

	PAGE
Teagarden is 88th President	5
Agricultural Highlights	7
Division Reports	12
Control	13
Dairy	15
Entomology	17
Insect Conditions, 1981	18
Plant Diseases, 1981	26
Marketing	31
Meat and Poultry	37
Statistical	43
Water Resources	49
Weed and Pesticide	63
Weights and Measures	69
Secretary Duitsman Dies	73
In Memoriam	75
111th Annual Meeting	78
Kansas Agriculturists Honored	89
Farm Facts	114
Index	265

Teagarden Is 88th President

Robert R. Teagarden, a 69-year-old farmer from La Cygne, has been elected president of the Kansas State Board of Agriculture for 1982-83. He is the 88th man to lead the Board.

Teagarden, who has farmed in Linn County all his life, says he drove his first team of mules when he was nine years old. He has been a member of the Board of Agriculture since 1963.

Teagarden graduated from Kansas State University with a bachelor's degree in animal husbandry in 1935.

In his farming operation, Teagarden has produced certified wheat, registered Shorthorn and Simmental cattle, and had a commercial hog operation.

Teagarden and his wife, Iva, were in Kansas State University's Master Farmer-Farm Homemaker class of 1965. In 1978 Teagarden was recognized by the Kansas 4-H Foundation for more than 30 years as a 4-H Leader.

He is a 50-year member of the Grange. Among his other memberships are the Kansas Farm Bureau, Kansas Shorthorn Association, Kansas Livestock Association, Kansas and American Simmental Associations, Kansas Pork Producer's Council and Kansas Crop Improvement Association.

Priddle is Ninth Leader in 111 Years

Harland E. Priddle

Harland E. Priddle was elected to serve as Kansas' ninth Secretary of Agriculture Jan. 14, 1982. Secretary Priddle is a native Kansan from near Haven. He was reared on the family farm which his grandfather settled in 1873. A graduate of Haven High School, Priddle served as president of the Kansas State Future Farmers of America in 1946.

He graduated from Kansas State University in 1952, receiving a bachelor's degree. He majored in animal husbandry and minored in agricultural education. Among Priddle's college activities were the KSU livestock judging teams.

In 1952, he entered the United States Air Force. He served a total of 22 years in the service, retiring in 1974 as a colonel. Among his assignments were three years at the White House Communications Agency in Washington, D.C.

Priddle was involved in the family farm even during his years in the service. He established a herd of Registered Angus cattle in the early 1950s. It was dispersed in 1968. After his retirement from the Air Force, he returned to active operation of the Haven farm from 1975 to 1981.

From 1975 to 1978, Priddle was assistant secretary of the Kansas State Fair in Hutchinson. He left that position to join the staff of the Hutchinson National Bank and Trust Company as vice president for marketing and customer services, where he served until accepting the post of Secretary of Agriculture.

Priddle and his wife, Winifred, have three grown children.

Harland Priddle is sworn in as Kansas' ninth Secretary of Agriculture, Jan. 14, 1982.

Secretary Priddle, with Assistant Secretary Don Jacka at right, answers a reporter's question.

AGRICULTURAL HIGHLIGHTS

Harland E. Priddle, Secretary of Agriculture

The state of the economy dominated the Kansas agricultural scene in 1981. A continued decline in farm income resulted from inflation and lower farm product prices. Prices received by Kansas farmers during the last half of the year significantly were below previous year levels. The index of prices received by Kansas farmers at the end of 1981 stood 13 percent below year-earlier levels. There was some cooling of inflation with the prices paid index advancing only 3.3 percent over the previous year. The year-end parity ratio, however, at 57, was nine points below the previous year and the lowest since 1933. As shown in the table below, December prices for major crops were little more than 50 percent of parity. Cattle and hog prices stood at 57 and 47 percent, respectively.

December 1981 Prices Received by Farmers

Commodity	Kansas Average Prices	United States Average Prices	Parity Prices	U. S. Price As Percent of Parity
Wheat, Bu.	$ 3.91	$ 3.80	$ 7.07	54
Corn, Bu.	2.54	2.39	4.87	49
Oats, Bu.	—	1.94	2.61	74
Barley, Bu.	—	2.48	4.53	55
Grain Sorghum, Cwt.	3.75	3.95	8.20	48
Soybeans, Bu.	5.73	6.00	12.40	48
Beef Cattle, Cwt.	51.90	52.00	91.90	57
Calves, Cwt.	59.50	57.70	109.00	53
Hogs, Cwt	37.50	39.00	82.20	47
Lambs, Cwt	48.70	47.50	103.00	46
Sheep, Cwt	17.80	19.20	31.80	60
Milk, Cwt.	14.50	14.00	20.00	70
Parity Ratio	—	—	—	57

Cash Receipts and Farm Income

Cash receipts from farm marketings in Kansas showed the second consecutive year of decline during 1981. Total cash receipts were estimated at nearly $5.8 billion, two percent less than 1980 and eight percent below the record high of $6.3 billion in 1979. Receipts from livestock and livestock products, at nearly $3.3 billion, declined three percent and accounted for 57 percent of total cash receipts. Cash receipts from crops fell one percent to the $2.5 billion level.

Estimates of farm production expenses for 1981 are not yet available, but the final tally for 1980 showed only a two percent increase over year-earlier levels due to lower prices for livestock. The cost of livestock purchases declined 20 percent. All other categories of expense items except rent to landlords showed an increase. Interest on farm mortgage debt was up 24 percent; fertilizer and lime expenses up 33 percent; and the cost of operation and repair of capital equipment was up 20 percent. During 1980, labor costs increased more than 14 percent. Taxes on farm property, however, were the highest on record, but little more than three percent above the previous year. Net income per farm during 1980 totaled $9,835 in Kansas. This was down 40 percent from the record high level of 1979.

Farmland values still were on the increase during the early part of 1981 with the average per acre value of Kansas farmland and buildings on Feb. 1 estimated at $590. This was an increase of only three percent over the previous year and represented a leveling off compared with the 1978 to 1979 increase of nearly 20 percent and the 1979 to 1980 increase of more than 14 percent. The total value of Kansas farmland and buildings amounted to $28.5 billion in February 1981. This equates to an average value per operating unit of $385,100. The 1981 cash rents also showed some increase over year-earlier levels. Non-irrigated cropland rented for an average of $31.70 per acre, an increase of nearly four percent. Irrigated cropland rented for $64 an acre, an increase of five percent. Pasture rented for $12.60 an acre, an increase of only two percent.

Weather

Although the economic situation claimed many headlines, weather continued to be a prime force in determining Kansas agricultural output. In some respects, 1981 weather was ideal for Kansas agriculture. Rainfall was near to above normal throughout much of the state. Temperatures were warmer than normal during the winter months and tended to be cooler than normal through this summer. They certainly were much cooler than the scorching summer of 1980. On the other hand, Mother's Day weekend, May 9-10, brought record-breaking low temperatures in the mid-20s to a large area of northern and western Kansas resulting in extensive damage to the wheat crop. This was two or three weeks later than normal for frost to occur. Combined with the fact that the crop was more advanced than usual, it resulted in extensive damage which could not be fully appraised until harvest.

Wheat

Kansas farmers seeded 14 million acres to wheat in the fall of 1980, but dry conditions prevailed in many areas at planting time and persisted through winter and early spring months. By May, the acreage for harvest was expected to be seven and one-half percent larger than the 1980 harvest, the largest since 1952. The May 1 forecast, based on 12.9 million acres expected to be harvested and an average yield of 32 bushels per acre, totaled 412.8 million bushels, down two percent from the record-breaking crop of 1980. The early May freeze resulted in a much larger abandonment than previously had been expected. Yields ultimately were reduced to an average of 25 bushels per acre bringing the 1981 wheat crop to 305 million bushels. Losses from freeze damage were a subject of much debate until harvest. Losses readily were apparent in some fields. In others, the extent of the loss really was not known until combines were in the field.

The 1981 fall wheat seedings for harvest in 1982 totaled 14.2 million acres, a one percent increase over the previous year—the largest acreage since 1953. Mid-summer rains, which delayed harvest of the 1981 crop, provided excellent moisture for the 1982 wheat crop. In most areas seeding got off to a good start in September and moved along at a near-normal pace. Excessive moisture in southeast and areas of south central Kansas caused some delay in planting with the result that many fields in those areas had little opportunity for growth prior to going into winter. Growth, however, was excellent in other areas of the state. Reports showed a higher utilization of wheat pasture than had occurred for many years in Kansas. There was little snow cover throughout much of the winter with temperatures in many areas reaching as low as twenty degrees below zero. Some fields, particularly in eastern Kansas, suffered extensive winter damage. This was variable depending on the lay of the land and condition of the wheat as it went into winter.

Farm program announcements concerning wheat were too late to influence planting decisions. Once the investment was made, many farmers were uncertain regarding their plans for farm program participation.

Fall Crops

The same summer rains which delayed wheat harvest greatly encouraged the growth of row crops and hay, resulting in record high yields of corn, oats, soybeans and hay. Sorghum grain production totaled 238.5 million bushels, 59 percent above the drought-stricken crop of 1980—the second largest sorghum grain crop on record. There were 3.6 million acres of sorghum cut for grain, two percent above 1980. Yields averaged 67 bushels per acre, two bushels below the record yield of 69 bushels per acre 1979. Some 280,000 acres of sorghum were harvested for silage. The yield, a record 13.5 tons per acres, resulted in a total production of 3.8 million tons. The excellent condition of the crop through the summer brought hopes of record grain yields; however, greenbugs and chinch bugs were present in many fields. Infestations particularly were severe in a number of late planted stands.

Kansas farmers harvested 1.26 million acres of corn for grain in 1981 with yields averaging a record 126 bushels per acre. Production, at 158.8 million bushels, was 43 percent above 1980's drought crop but eight percent below the record 1979 crop. Yields on irrigated land averaged nearly 141 bushels per acre; dryland yields averaged 95 bushels per acre. Production of corn silage totaled 2.9 million tons compared with 3.6 million tons the previous year. The average yield of 17 tons per acre was at a record level, nearly double the previous year. White corn production, at 3.2 million bushels, was up sharply from the previous year. The average yield of 95 bushels per acre was more than double that obtained in 1980.

More than one and one-half million acres of soybeans were harvested by Kansas farmers in 1981, four percent higher than one year earlier. It represented the third year in a row in which Kansas farmers harvested more acres of soybeans than corn for grain. Kansas soybeans averaged 30 bushels per acre, a record high and close to double the disappointing yield of 16.5 bushels per acre in 1980. Total soybean production, at 4.3 million bushels, was an all-time record. The rain-delayed wheat harvest also delayed soybean planting. When combined with somewhat cool August weather, it resulted in crop development a little slower than normal. Despite concern that late fields might suffer extensive freeze damage, most fields made it through to maturity in good shape.

The total value of crops produced was $2.7 billion, according to preliminary estimates of season average prices. This was down five percent from the previous year and eleven percent below the record of 1979. The value of wheat produced in Kansas, estimated at $1.14 billion, was down 28 percent from 1980 with expected prices slightly below the 1980 season average. At the conclusion of harvest, sorghum grain was expected to average about 26 percent below year-earlier levels;

corn 22 percent below. Increased production, however, pushed crop values for sorghum grain to $515 million, 18 percent above 1980, and corn to $413 million, twelve percent above the 1980 season. Soybean prices were expected to be down nearly 22 percent but increased production pushed total value of the crop up to $267 million, 48 percent more than the previous year.

Livestock

Kansas livestock producers, cattlemen in particular, continued to suffer economic losses during 1981. Feeders saw negative net margins during every month of the year. Red meats faced increasing competition from increases in the output of lower priced chickens and turkeys. Inventory values of livestock and poultry in Kansas farms totaled $2.2 billion at the end of 1981, a decline of 20 percent from 1980.

Cattle

The Jan. 1, 1982 inventory of cattle and calves in Kansas totaled six million head, down seven percent from the previous year's level. Beef cow numbers, at 1,826,000 head, were down four percent from a year earlier. Beef cow replacements were down seven percent. With reduced cow numbers, the 1981 calf crop, at 1,770,000 head, was down four percent.

Cattle on feed in Kansas feed lots totaled 1.11 million head on January 1, a one percent increase over the previous Jan. 1 numbers. Other cattle feeding states except Nebraska were generally down ten percent or more. During most months of 1981, prices feeders received for fat steers at Omaha averaged from eight to ten dollars per hundredweight below calculated break-even prices. Total fed cattle marketed by Kansas feedlots during 1981 amounted to 2,985,000 head, just one percent below 1980 levels.

The 1981 Kansas cattle slaughter, however, numbered more than 3.6 million head, 22 percent above 1980. This came about as a result of increased slaughter capacity, particularly in southwest Kansas. The proximity of these plants to Kansas' southwest feedlots provides an economic advantage to cattle feeders in that part of the state. These slaughter plants also are pulling cattle from other nearby states. As a result, Kansas now ranks third among the states, behind Nebraska and Texas, in cattle slaughter. Beef production in Kansas during 1981 was 23 percent above 1980; U.S. beef production was up only three percent.

The Jan. 1 cattle inventory was valued at just over $2 billion. This was down about 21 percent from previous year levels and reflected a decline in average value from $405 per head on Jan. 1, 1981 to $345 per head on Jan. 1, 1982.

Hogs

The number of hogs on Kansas farms on Dec. 1, 1981 totaled 1.77 million head, seven percent below the previous year and the smallest Dec. 1 inventory since 1975. Breeding stock was down 17 percent from the previous year; farmers' expecting farrowings were reported to be down 11 percent for the December-February quarter and 22 percent for the March-May quarter. The cutback in hog inventory and farrowings first was signaled in the September Hog and Pig Report which showed a three percent decline in inventory. The reduced numbers, which also were substantiated by the March 1982 Hog and Pig Report, were a result of substantial losses suffered by the hog industry during the past year. Calculated break-even prices were well above the seven-market average of barrow and gilt prices during each month of 1981. During that time negative margins ranged from $2 to $14 dollars per hundredweight. The inventory value of hogs and pigs on Kansas farms on Dec. 1 totaled $111.5 million. This was down nine percent from 1980 as a result of a smaller inventory and a $1.50 decline in average price per head.

Other Livestock

Sheep and lamb numbers on Kansas farms and ranches continued their downward trend, totaling 200,000 head on Jan. 1, 1982. This was nine percent below the previous year and the second consecutive year of declining numbers. Sharply lower year-end lamb prices caused sheep producers to be faced with a poor price-cost situation. Consequently, fewer lambs were placed in feedlots and sheep and lambs on feed Jan. 1, 1982 totaled only 60,000 head, down 25 percent from a year earlier. The stock sheep inventory held constant as a small decline in ewes one-year-old and over was offset by an increase in the number of ewe lambs. The value of the sheep inventory totaled $10.7 million, down 21 percent from the previous year. The average value per head, at $53.50, was eight dollars per head lower than the previous year.

Milk production in Kansas during 1981 totaled nearly 1.4 billion pounds, up five percent from 1980 and the highest annual production since 1977. The number of milk cows on Kansas farms averaged 124,000 head during the year, up slightly from the 123,000 average of 1980. Production per cow in 1981, the highest on record, totaled 11,266 pounds compared with 10,813 in 1980.

There were an estimated 2,266,000 chickens on Kansas farms on Dec. 1, 1981. With an average price of $1.50 per bird, the total inventory was valued at nearly $3.4 million. Although the inventory was up nearly six percent, the total value was down due to a 10¢ per bird decline in average value. Egg production in Kansas during 1981 totaled 416 million eggs, down nearly three percent from the previous year. A five percent increase in the rate of lay was more than offset by a seven percent decline in layer numbers.

A Look Ahead

The long-range outlook for Kansas agriculture has to be viewed with optimism. Our Kansas farmers are skilled producers with a proven record of taking advantage of technological developments which have made them among the most efficient farmers in the world. We have a growing world population with a rising standard of living. The lesser developed countries are developing their economic "muscle." There are tremendous opportunities for the expansion of world demand for Kansas agricultural products. How well we do in answering that demand will depend in part on how well we develop those markets through the use of our commodity commissions and how well we develop our expertise in selling Kansas products. Together with all the Kansas farm and agribusiness organizations, we at the State Board of Agriculture are working to develop the posture needed to meet the challenge of the agricultural marketing opportunities that lay ahead.

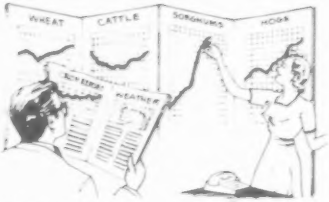
The current economic outlook is less optimistic. We have burdensome grain supplies with carryovers of wheat and feed grains projected to be at relatively high levels. We have experienced not only a national recession but also a worldwide recession. The strengthened value of the dollar has raised the price of U.S. farm products to foreign consumers. Inflation and high interest rates with resultant cash flow problems have pushed a number of agribusiness firms and farmers to the brink of failure. Some are not expected to survive.

There are, however, some bright spots. Inflation has been reduced substantially during the past year and the current economic discussion centers on the timing of a turnaround in the economy. Many economists feel the low point has been reached. They advise farmers to control costs and cash flow and position themselves to be ready to take advantage of the coming upswing in the economy and potential improvements in farm prices.

CONTROL

ENTOMOLOGY

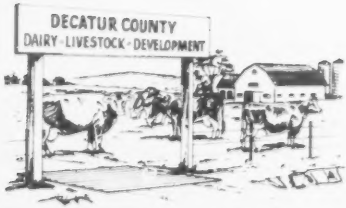
MARKETING



STATISTICAL

DIVISION REPORTS

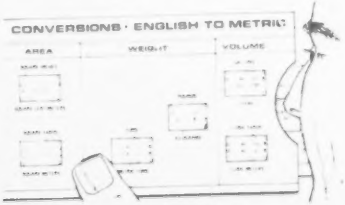
MEAT & POULTRY



DAIRY

WATER RESOURCES

WEED & PESTICIDE



WEIGHTS & MEASURES

R. H. GUNTERT
DIRECTOR

CONTROL DIVISION

Use of Agricultural Lime

Only a very few crops grow well in acid soils. This is because most plants require significant amounts of calcium (Ca) and magnesium (Mg) which are replaced by systematic applications of agricultural limestone. Ag lime not only corrects conditions of soil acidity, but also supplies the plant with much needed calcium, and in many cases, magnesium.

The measurement of acidity or alkalinity of any given soil is known as soil pH. Soil pH directly affects the availability of all vital elements which influence crop production. An application of liming material to an acid soil will increase the availability of plant nutrients which are so very important to successful crop production. Among these are nitrogen, phosphate and others.

Liming also reduces luxury uptake of potash by the plants and reduces the availability of aluminum and manganese, which, at certain levels, can be extremely toxic to plant growth. Liming also helps increase the number and activity of beneficial soil bacteria. It helps improve the physical condition of the soil by supplying the calcium needed by leguminous crops to increase their growth. It also helps to increase root development and permeability of the soil.

Agricultural lime is the single most economical factor involved in crop production on the majority of soils in the humid areas of America. (The application of needed fertilizers is the most influential factor to crop production generally.) The intelligent use of water, both rainfall and irrigation, is yet another important influencing factor on crop production. So is the sound use of herbicides and insecticides.

The crop production program that is still most frequently bypassed, however, is the systematic application of agricultural limestone. This is the first step in a sound fertility program on the majority of soils in the humid zones of this country. To get a better idea of the exact needs of your soil, a soil test made by an accredited laboratory is highly recommended.

The control division became involved with the regulation of agricultural liming materials with the 1976 enactment of the Kansas Agricultural Liming Materials Law. This law is designed to provide for the registration of quarries by manufacturers of agricultural liming materials, and to provide for labeling as to fineness of grind and calcium carbonate equivalent guarantees.

Most agricultural lime used in Kansas is in the eastern half of the state, making the tonnage of agricultural liming materials used in Kansas less than it is in the eastern and southern areas of the United States.

Since tonnage data has been collected with the passage of the Kansas law, the following tonnage information is shown:

1976-77	726,848 tons
1977-78	264,317 tons
1978-79	460,142 tons

1979-80	499,327 tons
1980-81	549,311 tons

These figures vary with weather and crop conditions within the area where agricultural liming currently is used.

The Kansas Agricultural Liming Materials Act

The Kansas Agricultural Liming Materials Act requires that: (a) Every package or container of agricultural liming materials sold, offered or exposed for sale in this state shall have affixed to each package in a conspicuous manner on the outside thereof, a plainly printed, stamped or otherwise marked label, tag or statement setting forth the following information: (1) The name and principal office address of the manufacturer or distributor;

(2) the brand or trade name of the material;

(3) the identification of the product as to type of agricultural liming material;

(4) the net weight of the agricultural liming material;

(5) the calcium carbonate equivalent as determined by methods prescribed by the association of official analytical chemists, and in minimum amounts as prescribed by rules and regulations of the secretary of the state board of agriculture; and

(6) the minimum percentage by weight passing through U.S. standard sieves, as prescribed by rules and regulations;

(7) the minimum percentage of weight of effective calcium carbonate equivalent (ECC), a function of calcium carbonate equivalent and fineness as prescribed by rules and regulations of the secretary of the state board of agriculture.

(b) In any case where a bulk sale of agricultural liming materials is made, the delivery slip identifying such sale shall contain the information required by subsection (a) (7).

(c) No information or statement shall appear on any package, label, delivery slip or advertising material which is false or misleading to the purchaser as to the quality, analysis, type or composition of the agricultural liming material.

(d) In the case of any material which has been adulterated subsequent to packaging, labeling or loading thereof but before delivery to the consumer, a plainly marked notice to that effect shall be affixed by the vendor to the package or delivery slip to identify the kind and degree of adulteration therein.

(e) At every site from which agricultural liming materials are delivered in bulk or orders for bulk deliveries are placed by consumers, there shall be conspicuously posted a statement setting forth the information required by subsection (a) of this section for each brand of material.

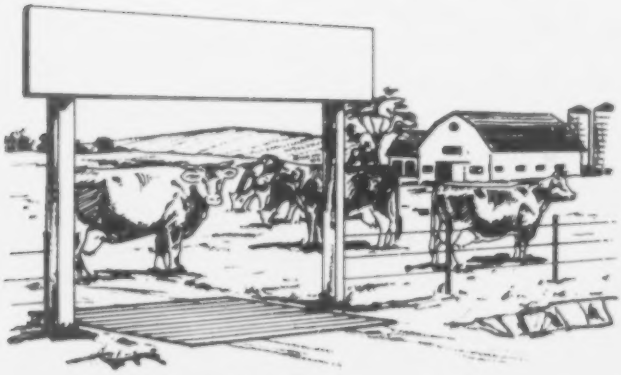
The law also states that "No agricultural liming material shall be sold or offered for sale in this state if (a) it does not comply with the provisions of this act or rules and regulations adopted pursuant thereto, or (b) it contains toxic materials in quantities injurious to plants or animals.

"Every manufacturer of liming materials to be distributed in this state shall on July 1 of each year, or prior to manufacture or distribution of such liming materials, register each manufacturing facility on a form furnished by the secretary of the state board of agriculture, the application to be accompanied by a fee of twenty-five dollars ($25). All such licenses shall expire on June 30 of the following year."

The Kansas Agricultural Liming Materials Act became effective in 1976.

Other Division Duties

The control division, in addition to the Kansas Agricultural Liming Materials Act, administers laws which require honest labeling of commercial feeds, fertilizers, agricultural seeds, agricultural chemicals, livestock remedies, and soil amendments. Labels must contain truthful statements pertaining to contents as well as adequate directions for use.



BRACE ROWLEY
DAIRY COMMISSIONER

DAIRY DIVISION

The safety and wholesomeness of dairy products depends on good sanitary controls being applied from cow to consumer. Kansas dairy laws and regulations establish the guidelines used by the state's industry in the production, processing and handling of milk and dairy products. It is the responsibility of the dairy division to administer and enforce these laws and regulations. The division's regulatory functions are organized into two programs: a Grade A milk program and a manufacturing milk program.

Grade A Program

The Grade A program is organized into eight inspection areas. Area assignments are by counties, with the number of counties in each area being determined by matching the farm and plant workload to staffing available in each area. Five inspection areas currently are staffed with one dairy division employee per area.

Three of the inspection areas are staffed by employees of city-county health departments under a contractual program in which they serve as agents of the state to perform the milk inspection services. The Topeka area is staffed with two inspectors; the Kansas City and Wichita areas each have three inspectors.

Each of the inspection areas perform the following services: (1) conduct sanitary inspection of each Grade A farm at least once each six months, with additional inspections being made when sanitary or milk quality standard violations indicate the need for reinspection; (2) a sanitary inspection of each Grade A processing plant each three months and additional follow-up inspections for violations of sanitary or quality standards; (3) four times each six months, samples of each Grade A farm milk supply and Grade A pasteurized milk and milk products from the Grade A plants are collected and submitted for laboratory examination to determine compliance with state quality standards. Milk or products not in compliance with standards are resampled and submitted for laboratory examination to reinstate milk or product sales; (4) pasteurized milk and milk products from out-of-state plants are collected and submitted for laboratory examination to assure that such products being offered for sale in Kansas comply with the state's quality and composition standards; and, (5) tests are performed each six months on a plant's pasteurization equipment to ensure proper functioning of the plant's pasteurizing system.

The Kansas Grade A program provides inspection services for 1,509 Grade A dairy farms, 21 Grade A plants, and monitors the quality of Grade A products from 34 out-of-state distributors selling in Kansas. A number of these out-of-state distributors are offering, for sale in Kansas, specialty Grade A products such as yogurts, acidified milk, and ultra pasteurized cream products that are not available from Kansas plants.

In addition to providing an inspection program which assures Kansas consumers of the safety of all Grade A milk offered for sale in Kansas, the state

program meets the standards established by the National Conference of Interstate Milk Shippers which allows Kansas milk to move freely to other states. This is of real economic importance to the Kansas Grade A industry, since the state annually produces approximately 1.1 billion pounds of milk and utilizes only approximately 575 million pounds in Kansas processing plants. Kansas is able to export approximately 300 million pounds of surplus milk to other states for use in production of Grade A products.

Manufacturing Milk Program

The manufacturing milk program is conducted by four staff members assigned to four regions in the state. They provide inspection and regulatory services for the manufacturing industry located within these regions. In this program, approved industry fieldmen from plants are utilized to perform annual certification of manufacturing milk farms. The division staff trains these industry fieldmen and annually recertifies them for performance of farm certification sanitation inspections. Industry laboratory technicians are trained by division staff personnel in conducting bacterial, sediment, and abnormal tests on manufacturing milk farm supplies.

Quarterly inspections of the state's manufacturing milk plants are conducted to determine compliance of facilities and equipment with state sanitation requirements and standards. On each inspection, manufactured milk products are collected and submitted for laboratory examination. The program provides inspection services for one butter plant, one condensed milk plant, one nonfat dry milk plant, ten cheese plants, seventeen frozen dessert plants, and 1,139 soft serve frozen dessert establishments that freeze ice cream and ice milk mixes for retail sales only.

The Grade A and manufacturing milk inspection programs both rely heavily on laboratory examinations to supplement the visual sanitation inspections to provide additional assurance of the safety and wholesomeness of milk and dairy products. Farm milk supplies are examined for bacterial quality, antibotics and pesticide residues, presence of added water, and detection of excessive high somatic cell counts associated with mastitis infection in dairy herds.

Pasteurized milk and dairy products are examined to determine bacterial plate counts, coliform bacterial counts (a determination of post-pasteurization contamination), antibiotic residues, presence of added water, and given a phosphotase test that detects improper pasteurization of a product. Butterfat, solids not fat, and total milk solids tests also are conducted to assure that product composition complies with state standards. Annually, more than 40,000 dairy samples are submitted for laboratory analysis.

Dairy Commissioner Brace Rowley is congratulated by Governor John Carlin. He received recognition for his 40 years of service to the state of Kansas.

DEAN GARWOOD
DIRECTOR

ENTOMOLOGY DIVISION

The entomology division of the Kansas State Board of Agriculture is responsible for the enforcement of the Kansas Pesticide Law as it applies to commercial exterminators and lawn and tree sprayers. The law requires pest control firms to be licensed and insured and sets minimum standards for performance. Inspectors from the division investigate consumer complaints of alleged misuse of pesticides, pesticide drift, poisoning of non-target oganisms and pest control fraud.

Investigators must gather unbiased evidence to determine if pesticide applicators have complied with all requirements of the Kansas Pesticide Law. They routinely check businesses involved in pest control to make sure they are licensed and kept informed of pertinent regulatory statutes. Investigators periodically sample applicators' spray tanks to see that pesticides are being diluted according to label instructions. They often are required to testify in both civil and criminal court cases involving commercial pesticide applicators.

When a complaint is received in the division office, it is forwarded to the staff member responsible for that particular area of the state. The investigator interviews the complainant and inspects the alleged damage. If a violation is discovered, the division may take one of several steps.

If the violation is relatively minor, the applicator may receive a verbal or written warning. A somewhat more serious offense or repetition of a previous one may result in an informal hearing in Topeka. For serious violations of the Kansas Pesticide Law, a formal hearing may result in the revocation or suspension of the applicator's business license. Cases involving fraud or operating without a business license are turned over to the appropriate county attorney for criminal prosecution.

The entomology division received 133 complaints against pesticide applicators during 1981. Many cases were found to involve no violations of the law and were dismissed. In others, investigators acted as intermediaries between the customers and the pest control companies, making sure the companies took care of the customers' complaints. Warnings were issued to five companies, two formal hearings were conducted, and several others are pending.

In cases turned over to county attorneys for prosecution, three applicators were convicted of operating without a pesticide business license, a misdemeanor. Six individuals were charged with theft by deception (fraud), a felony. One was convicted on two counts: the others are awaiting trial. Three individuals from one company which received 32 complaints were charged with a total of 27 counts of theft by deception. Additional charges are pending.

Summary of Insect Conditions in Kansas in 1981

K. O. Bell Jr., Survey Entomologist

Highlights

The alfalfa weevil was a very serious pest in most alfalfa fields statewide. Blue alfalfa aphid appeared in damaging numbers in some fields in southwest and west central Kansas along with the pea aphid; the former killed a seedling stand (isolated case) during fall in Jackson County. Spotted alfalfa aphids overwintered in unusually large numbers and damaged scattered alfalfa in parts of southeast and south central Kansas.

High numbers of overwintered chinch bugs caused less damage than was possible when weather unfavorable to them and a fungus disease occurred. At least two generations of garden webworms caused heavy defoliation of scattered alfalfa fields throughout much of eastern and south central Kansas; isolated fields of seedling soybeans, sorghum, sunflowers and garden vegetables also were attacked.

Second generation southwestern corn borers were found in damaging numbers over more of south central and southwest Kansas than since 1978. Second generation European corn borers were markedly lower in south central and western Kansas than in the previous two years. The greenbug survived the mild winter in small grains and caused serious damage to many untreated fields, particularly in parts of central, south central and western Kansas. This pest returned in late July to become a serious pest in western Kansas sorghum through August.

Small Grains

A flea beetle caused serious wheat field margin damage in isolated cases in Hamilton and Sheridan counties about late September. The army cutworm was rarely found in economic numbers in Kansas small grains and alfalfa; no serious damage reported. Although moth flights often were substantial, few economic infestations of armyworms materialized in small grains or grasses; serious damage to wheat was reported only in Bourbon and Neosho counties.

The 1981 winter chinch bug survey showed the highest overwintered populations in recorded history; the potential for crop damage also was the highest ever. Favorable to an outbreak also were additional bugs that overwintered in less protected situations than normal during the mild 1980-81 winter. Fortunately, the weather proved very unfavorable; the first generation developing in small grains was greatly checked in most infested areas.

The relationship between wet weather and suppression of chinch bug populations usually was not clear when fields were checked periodically. Abnormally cool weather in May held egg laying down and could have played a significant role in population suppression. A fungus often was seen, especially among older adult bugs and nymphs weakened by starvation in maturing small grains. It is believed some adult bugs were killed by the fungus, at least before their full complement of eggs were laid. In some fields, heavy rains did not appear to drown many bugs; in others they did. The amounts and types of minerals in the run-off water might have influenced whether the bugs floated or sank. Burying of small nymphs by rain action and soil caking around eggs at plant bases in some soil types prevented hatching nymphs from escaping. It may have played a significant role in chinch bug population suppression based on some observations made during 1981 surveys.

In unusual cases during April, huge numbers of overwintered chinch bugs in a few wheat fields caused serious damage and some spotty stand loss, particularly in some northern counties of the northeast and north central districts. One case was reported as far south as McPherson County; a few fields or portions of fields were treated. Wet weather in late April and May allowed drought-stressed small grains to regain vigor; this largely resolved the problem.

First eggs in wheat were found by mid-April. That was three to four weeks earlier than normal, related to mild April weather. Hatching, however, was delayed greatly by cool weather until mid-May; hatching was not well underway until late May. Minor migrations from small grains to adjacent corn and sorghum began the second week of June. The presence of regrowth and some green grasses such as cheat in some maturing wheat fields provided a food source for the bugs and delayed migrations.

During the mild 1980-81 winter, greenbugs continued to increase in small grains. By early January, wheat in scattered areas or fields was being seriously damaged, particularly in McPherson, Harvey, Sedgwick, Reno, Sumner, Seward and Stevens counties. A short period of subzero temperatures in early February significantly reduced greenbugs in these infested areas, but large numbers survived where plant cover was good. By early March, populations had recovered and stand loss again was underway in some fields.

By late March greenbug problems appeared in scattered fields and areas as far north as Gove and Ellis counties; as far east as Lyon County. During early April, damage was occurring in scattered areas over much of the western third of Kansas—parts of south central, central and southeast crop reporting districts. By mid-April, however, beneficial insects had destroyed remaining greenbugs in untreated fields except for in parts of west central and possibly northwest Kansas.

K. O. Bell took this photograph showing damage to sorghum by greenbugs. The poorly developed head (right) was from a plant severely damaged by greenbugs. The head on the left came from another area of the field where plant damage was less severe.

During the greenbug outbreak in various areas, stands in many fields or parts of fields were destroyed. Some of the most notable losses seen in limited surveys were in parts of McPherson, Sedgwick, Haskell and Stanton counties; damage just as serious probably occurred in some other areas as well. Losses may have been serious in many fields where greenbugs reached high populations even though beneficial insects brought them under control before much yellowing or killing of plants occurred; the extent of such losses in the affected areas is difficult to estimate. Despite early warnings to growers and widespread use of pesticides, losses to Kansas small grain production due to winter and spring greenbug infestations likely amounted to several million dollars.

In late August, growers in western Kansas were warned to watch for possible greenbug problems in early wheat because of high populations still remaining in volunteer wheat and some sorghum fields. Serious late summer greenbug problems in early wheat were limited to isolated cases in the more southwestern counties of the southwest district (mostly in Seward, Stevens and Morton counties), where greenbugs persisted in milo and volunteer wheat longer than in other areas, sometimes as late as mid-September, providing a reservoir of winged greenbugs. Beating rains, along with beneficial insects, had eliminated nearly all greenbugs in that area by mid-September.

The annual Hessian fly survey in wheat showed only 22 percent of the fields infested compared to 47 percent in 1980 and 43 percent in 1979. This decline in fly infestation appeared associated with the hot dry weather of July through September, 1980, which was detrimental to flies in wheat stubble. Late seeding of the 1980-81 crop because of dry weather also likely figured largely in the decline.

Second generation migratory grasshoppers probably were the most bothersome since 1979 in late summer and fall along field margins adjacent to wheat stubble, particularly in some western counties of the west central and southwest districts. Mild weather, without hopper-killing freezes, persisted into November to aggravate the problem. Isolated serious wheat stand losses along field margins were reported as far east as Scott County. Oat aphids were unusually abundant in wheat during fall and early winter in some fields in scattered areas over much of Kansas. Pale western cutworms were scarce in 1981. White grubs (nearly all *Cyclocephala* sp.) were verified in economic numbers in isolated wheat fields in Finney, Haskell, Ford, Gray, Reno and Sumner counties in September; a few had ceased feeding by early October in Reno County; more than 50 percent were no longer feeding by mid-October at sites in Gray and Ford counties.

Corn and Sorghum

Black cutworms generally were scarce in corn in 1981. Cattail caterpillars caused some milo defoliation in Atchison and Brown counties in mid-July.

Despite suppression by cool, wet weather and a fungus, enough chinch bugs developed to cause serious problems in seedling milo (rarely corn) adjacent to wheat, mostly in parts of the central Kansas crop reporting districts, but also in eastern Kansas crop reporting districts (particularly the westernmost counties of these districts).

As in 1980, chinch bugs were more damaging than indicated by the winter survey in some Kansas counties, particularly in the western parts of the central and north central crop reporting districts. Because of this it was stated in the 1981 Survey Report of overwintering chinch bugs that problems might occur with migrations from small grains to adjacent seedling milo as far west as Smith, Ellis, Rush, Stafford, Kingman and Sumner counties. It further was stated that some problems were not entirely ruled out in counties adjoining these further west. Problems were reported in all those counties except Rush as were limited problems in Rooks and Phillips counties.

Cool, wet weather in July and August suppressed development of heavy populations of second generation bugs in sorghum in most areas, although some treating was reported at least in parts of central and north central districts. No

third generation was produced. Numbers of bugs going into the winter appeared comparatively low in most areas.

The corn earworm was not a serious pest in milo heads in 1981. Losses due to kernel feeding in field corn, principally by this pest (plus that by fall armyworms and western bean cutworms), was pegged at about $3.21 million compared to $3.37 million in 1980. The corn leaf aphid was much more abundant than usual in heads of milo in western Kansas; some treating. Root damage by corn rootworm larvae was unusually low in 1981; no reports of serious damage. Adult western corn rootworms, however, were noted in unusually high numbers in corn the third week of July, at least in parts of Scott and Lane counties where five to 10 per plant were not uncommon.

Fall armyworms were not as abundant as usual in Kansas corn and sorghum; no heavy infestations were reported—damaging infestations appeared rare.

In milo, as in wheat, the greenbug represented one of the biggest insect stories of 1981. Scarce in milo during the early part of the growing season, the first significant build-ups of greenbugs on sorghum in 1981 were discovered about the third week of July, when as high as 500 per plant (average) were seen in southwest Kansas and 150 per plant in northwest Kansas. Populations, however, were very low in most fields in both areas. Light parasitism was noted in some fields in the northwest. An area was discovered in Wallace County in late July where greenbugs commonly averaged more than 2,000 per plant in older sorghum with some lower leaves killed and others dying. After that time the greenbug became a serious pest in milo in various areas or fields over most of the western half of Kansas.

Serious infestations often killed all leaves in large spots in untreated fields, resulting in small heads and seed and preventing some heads from emerging. Whole fields rarely were so affected, but it was seen in a large field near Woodston. In many cases heavily damaged spots lodged severely before harvest, as did the field near Woodston which was mostly salvaged by putting it in the silo.

Limited greenbug samples taken in milo in western Kansas in August were all biotype E. Biotype C was found in at least one case further east in Reno County. It seems reasonable that biotype C may still have predominated in some fields or areas in western Kansas. Good evidence of the presence of biotype C in Phillips County was obtained from a local grower who related that he saw serious greenbug damage in a field of milo with no resistance to C and only light damage in other fields resistant to C.

Where E was present, however, it seems logical to assume that because of its ability to increase faster and cause more damage to commonly grown varieties, this new biotype likely figured largely in the severity of the western Kansas greenbug problem in 1981.

Other factors also contributed to the severity of the problem, some of which are not clear. In western areas of Kansas, natural enemies had eliminated most untreated infestations by late August, but infestations lingered later than expected in some fields or areas in western Kansas. Greenbugs still were heavy in spots in some fields in Stevens and Morton counties in the southwest corner of Kansas as late as the first two weeks of September. Infestations seemed to have gotten a later start there than in other areas.

To explain the problem with lingering high infestations in some western Kansas fields, some said the parasite (*Lysiphlebus testaceipes*) just was not doing nearly as good a job as normal. At least two possible reasons for this surfaced; there may be more. First, examination of mummies in some fields in northwest Kansas during September indicated that hyperparasitism may have been more prevalent than usual. Second, a fungus, apparently killing greenbugs in some milo fields, may have been transmitted when the wasp laid its egg in the greenbugs. The fungus may then have killed both the immature wasp and greenbug.

In eastern Kansas, some greenbug buildups were noted by early August; however, infestations mostly were halted by parasitic wasps and predators by mid-August, in nearly all cases before economic damage had occurred. Tiny lady

beetles in the genus *Scymnus* were often the most important predators assisting in greenbug control in eastern Kansas milo. They were very abundant in some fields in northwest Kansas as well. Oat aphids were unusually abundant on lower leaves of milo in western Kansas during August.

First generation Southwestern corn borer infestations in field corn remained generally low but appeared more common than usual in south central, central, and southwest districts, with isolated cases in Lane and Thomas counties further north. The mildness of the 1980-81 winter seemed to allow the species to overwinter in counties further west and north than usual. Second generation borers commonly were economic in most corn fields in the southwest district and western parts of the south central and central districts. Excellent control by timely treating with some modern pesticides commonly was noted. Light second generation infestations were seen in corn in McPherson and Sedgwick counties after being absent in 1979 and 1980.

Serious spider mite infestations were not as common as usual in western Kansas corn in 1981; damaging infestations did occur, however, particularly in parts of southwest Kansas and in some cases resisted chemical treatments. One heavy infestation was found as far east as Mullinville in Kiowa County in early August. Treatment of low level infestations was commonly practiced during July in some areas, with the idea that it would prevent damage or the need for treatment later in the season. Western bean cutworms seemed more abundant than usual in scattered corn fields in parts of the northwest and west central districts. Surveys, however, indicated that few infestations warranted treatment; ear damage apparently due to this pest was common in isolated fields in those districts as noted during a survey in late September.

Turf, Pastures and Rangeland

The annual survey of adult grasshoppers on rangeland conducted from mid-July to the third week of August showed severe infestations (eight or more per square yard) most common in Clark and Comanche counties. Under favorable conditions, damaging numbers of rangeland grasshoppers are most likely to occur with greatest frequency in those two counties in 1982. Non-economic populations (three to seven hoppers per square yard) were most common on rangeland in scattered areas in northwest, west central and south central districts. Under favorable conditions, populations in these areas could easily climb into the so-called economic range (eight or more per square yard) in 1982. Possible serious problems should not be ruled out on rangeland in 1982 in parts of southwest Kansas; the surveyor who worked in the area thought the survey may have been too late and that the potential for problems was probably greater than results indicated.

A beneficial grasshopper, *Melanoplus bowditchii*, which feeds on sagebrush, was unusually common on rangeland, particularly in some areas of Seward County. Some ranchers were concerned until assured that most grasshoppers present were not feeding on valuable forage.

Major pests found in commercial turf inspected in 1981 included burrowing webworms, bluegrass billbugs, sod webworms and white grubs.

Alfalfa

Alfalfa weevil infestations in Kansas increased sharply over those of 1980, the greatest since the serious outbreak period of 1973-76. Some suspect a cycle and that widespread weevil problems are likely again in 1982.

Surveys indicated that most alfalfa in Kansas needed treatment for weevils. In some areas of far western Kansas, early cutting was said to have solved weevil problems. Surveys indicated that growers in most areas applied controls on a rather timely basis, but delayed pesticide applications still resulted in substantial first cutting losses in many cases. Surveys showed that in some areas most fields had been severely laced before treatments were applied. In other instances, treatments apparently were not made at least until regrowth was being seriously

delayed by large numbers of adult weevils and/or residual larvae. Presence of variegated cutworms and clover leaf weevils substantially contributed to regrowth delays in some fields.

A second treatment to control a resurgence of weevil larvae had to be applied to a few fields in southeast Kansas. Second treatments also often were necessary in some fields in many areas to control adult weevils holding back regrowth, especially where larval control by the first treatment was marginal. Unusually mild weather during the 1980-81 winter, which allowed much egg laying and high egg survival, likely contributed much to the seriousness of the alfalfa weevil outbreak.

A survey of larval and adult alfalfa weevil parasites involving 18 collection sites throughout Kansas yielded only one species, *Bathyplectes curculionis*.

Winter surveys showed that blue, pea and spotted alfalfa aphids all overwintered in alfalfa at least in southern Kansas. Reports and surveys indicated that the pea aphid was abundant and damaging in scattered alfalfa fields over much of western Kansas from mid- to late April. During this period, the blue alfalfa aphid was verified as causing stunting of alfalfa in spots in some fields in Scott, Ness, Finney and Kearny counties. Damage likely also occurred in other counties of that area. Predators and parasites were said to be controlling the pea aphid in many western Kansas fields by late April.

The blue alfalfa aphid killed a 30-acre field of seedling alfalfa in Jefferson County the third week of October. This is the first serious fall infestation recorded in Kansas.

After overwintering in large numbers, damaging infestations of spotted alfalfa aphids were found in some alfalfa fields in Sedgwick, Cowley and Wilson counties during April; problems also likely occurred at least in some adjoining counties.

Army cutworms caused minimal damage to alfalfa in 1981. At least two different generations of garden webworms caused serious defoliation of scattered fields of alfalfa over much of eastern and south central Kansas by mid-June and again by mid-July. Damage to alfalfa by grasshoppers was minimal in 1981.

Soybeans

Insect problems were minimal in Kansas soybeans in 1981. The only significant problems were due to garden webworms and grasshoppers. First garden webworm problems were reported in parts of eastern and south central Kansas in early June and declined by mid- to late June. Many infestations originated on pigweed. Problems with a succeeding generation were reported on late soybeans in southeast Kansas about mid-July. Grasshoppers began causing some feeding damage along margins of a few soybean fields in Elk, Chautauqua, Montgomery, Wilson, Neosho and Woodson counties by mid-July.

Cultivated Sunflowers

Few serious problems were noted during limited surveys. Few serious sunflower moth (head moth) infestations were seen, possibly because of adequate chemical controls. Larvae were heavy in sunflowers at one site in Finney County by late July. Heavy infestations, however, were seen on musk thistle by mid-June in both Shawnee and Marshall counties. Moths were flying in Manhattan by late June and second generation larvae of all sizes in sunflowers there by mid-July. Larvae of all sizes (possibly third generation) were abundant in heads of ironweed at one site in Wabaunsee County the second week of August. Other sunflower pests, usually causing minor damage, encountered in research plots near Manhattan included the budworm, stem weevil, longhorned wood borer (*Dectes* sp.), carrot beetle, garden webworm and white grubs.

General Vegetables

Some of the more important pests reported in Kansas vegetable gardens in 1981 included the garden webworm, spider mites, squash bug, Colorado potato beetle,

grasshoppers, various cutworms, turnip and other aphids (on crucifers, radishes and turnips), white grubs, corn earworm (sweet corn, beans, cowpeas, tomatoes), squash vine borer, pickleworm, bean leaf beetle; striped and spotted cucumber beetles; imported cabbageworm, various loopers and cabbage curculio (on crucifers) and eggplant fleabeetle.

Small Fruits

White grubs (three-year type) killed some strawberry plants at one site in Greensburg by late April; June beetles defoliated some there in early June.

Deciduous Fruits and Nuts

Walnut caterpillars were unusually common. They often caused much defoliation of black walnuts and pecans in eastern Kansas from mid- to late August. Spider mites reported on some Kansas fruit trees by late July. First codling moths were trapped in Newton about the second week of May.

Ornamentals and Shade Trees

The three major pests in Kansas nurseries were pine tip moth, bagworms and spider mites (junipers). Pheromone trapping of moths assisted some growers to better time spraying for pine tip moths. Various wood borers often were numerous in cottonwood and honey locusts in some nurseries. Other less common nursery pests included yellownecked caterpillar (birch), clay colored leaf beetle (honey locust), spruce and pine needle miners and pine tortoise scale (Scotch pine).

Seventeen year cicadas in eastern Kansas caused much public wonder and consternation in various areas. Severe twig damage due to egg laying was noted primarily on sugar maples in many nurseries. The European pine sawfly caused considerable defoliation of pines in the Kansas City area. Because of an unusually heavy outbreak of the oak twig girdler, dead twigs were unusually numerous on oaks, especially pin oaks, over much of eastern Kansas. Unusually large numbers of mature larvae of a seed midge from elms dropped onto sidwalks and the ground in huge numbers following rains in late March in Ottawa, Rossville and probably elsewhere. They caused much concern among home owners. First elm leaf beetle eggs of the season were reported in Manhattan on April 23, much earlier than normal; this pest caused light to heavy foliar damage to elms in Kansas in 1981; mostly second generation damage.

Humans and Animals

Reports of fleas biting people in and around homes were much more common than usual in parts of eastern Kansas during July; some were the dog flea. Stable flies were unusually abundant during early June.

Households and Structures

Boxelder bugs were a common nuisance to home owners, leaving homes in late winter and entering again in the fall for wintering. Unusually heavy and prolonged moth flights of the army cutworm and sometimes forage looper were recorded as a nuisance entering homes and other buildings during the later half of May and early June; moths also were occasionally abundant on flowering ornamental plants next to buildings.

Beneficial Organisms and Their Enemies

Most of these were discussed in conjunction with their hosts in the text. A fungus, *E. grylli*, killed varying numbers of mostly differential grasshoppers but also notable numbers of twostriped and trace migratory and bandwinged grasshoppers.

Detection

No new distribution records on the black vine weevil after its discovery at one site in Lenexa in 1980. The blue alfalfa aphid was recorded in these additional counties in 1981—Decatur, Norton and Sheridam.

Federal and State Plant Protection Programs

Trapping in a railyard in Kansas City yielded a total of four Japanese beetles in 1981, the same recorded for both in 1979 and 1980.

No gypsy moths were caught in limited trapping in parts of eastern Kansas.

Acknowledgements—Contributors to information summarized are far too many to list, but broadly speaking, many persons in these groups were involved: students; Experiment Station and Extension Service of Kansas State University; Entomology, Control, Weed and Pesticide Divisions of the Kansas State Board of Agriculture; various persons involved in pest management advisory services; representatives of chemical companies and pesticide applicators; U.S. Department of Agriculture's Science and Education Administration and Animal and Plant Health Inspection Service; and seed company representatives and growers. The majority of the information, however, was gathered by county, area and state Extension personnel involved with pest management and plant protection personnel of the Division of Entomology of the Kansas State Board of Agriculture.

In the second phase of the program researching the availability of alfalfa weevil parasites in Kansas, the entomology division began distribution of parasized weevils to selected sites in Kansas. As nature's own weapon against the destructive weevil, the tiny wasp can in many cases destroy weevils and cut pesticide costs. Above, Dean Garwood (left), director of the entomology division, is observed by a USDA employee from Nebraska as a shipment of weevil parasites is received in Kansas.

The entomology division is responsible for administration of laws dealing with detection and control of plant pests and diseases. Division functions include conducting the Kansas economic insect and plant disease survey program, supervising pest suppression or eradication programs, inspecting plant nurseries for dangerous or imported pests, and inspecting honeybee colonies for American Foulbrood or other serious and contagious bee diseases. The division also oversees those portions of the Kansas Pesticide Law dealing with ornamental, industrial, institutional, structural and public health pest control. Division services include the inspection and certification of grain, seed, walnut lumber and other plants and plant products for foreign export.

Summary of Plant Disease Conditions In Kansas In 1981

Thomas Sim IV, Survey Plant Pathologist

Highlights

Growing conditions generally were favorable in 1981. Exceptions were a May freeze which devastated the 1981 wheat crop and continued dry summer weather in parts of southeast Kansas.

Disease losses generally were moderate; wheat streak mosaic, however, was severe. Large amounts of volunteer wheat across Kansas during the summer and fall of 1980 no doubt allowed populations of wheat curl mites to increase.

Sorghum downy mildew was found for the first time in Gray, Nemaha, Dickinson, and Lyon counties, establishing county records. This disease now is known in 33 Kansas counties. Those counties produce approximately 45 percent and 36 percent of the total Kansas grain and silage sorghum, respectively.

Limited surveys for the soybean cyst nematode were conducted in east central and southeast Kansas during the growing season; no infested fields were found.

Alfalfa

Losses from foliar and stem diseases are estimated at 14 percent. Cool season diseases such as spring black stem, caused by *Phoma medicaginis*; Lepto leaf spot, caused by *Leptosphaerulina briosiana*; downy mildew, caused by *Peronospora trifoliorum*; yellow leaf blotch, caused by *Leptotrochila medicaginis*; and common leaf spot, caused by *Pseudopeziza medicaginis* caused defoliation in much of the first and second cuttings across the entire state. Some of these same diseases, along with rust, caused by *Uromyces striatus*, were active again in the fall.

Summer black stem, caused by *Cercospora medicaginis*, and bacterial leaf spot, caused by *Xanthomonas alfalfae*, were the most common diseases during the summer months. Frequent rains during that time allowed these two diseases to develop to damaging levels statewide. Losses from summer black stem and bacterial leaf spot were greater in 1981 than in 1980. Anthracnose, caused by *Colletotrichum trifolii*, also was more active, being observed most often in the central and eastern parts of Kansas.

Root and crown rots were observed more than in 1980. Possible contributing factors are (1) the drought of 1980 which subjected alfalfa to moisture stress; (2) many growers cut alfalfa well into the fall of 1980, thus removing top growth needed to supply the roots with food reserves for winter survival and initial spring growth; and (3) frequent rains during the summer allowed water to collect in low areas of many fields, subjecting the plants to excess water stress. Statewide losses from root and crown rots are estimated at two percent.

Total estimated loss is 16 percent compared with seven percent in 1980 and a five-year average of 16.5 percent.

Corn

Stalk rots again caused the most damage to the Kansas corn crop. The incidence of charcoal rot, caused by *Macrophomina phaseolina*, was generally less than 1980 levels, except in the east central and southeast crop reporting districts where incidences up to 20 percent were observed; little lodging was observed. Estimated loss is five percent. Fusarium and Gibberella stock rots, caused by *Fusarium* sp. and *Gibberella* sp., were more prevalent in the northwest, southwest, north central, northeast, east central, and southeast districts than in 1980. Some severe lodging was observed in the southeast district. Estimated loss is 6.5 percent.

Common rust, caused by *Puccinia sorghi*, was the most widespread corn disease in 1981. Distributed statewide, it was most common in central and eastern Kansas. This disease appeared in Marion County on June 9, its earliest appearance in the state since systematic surveys began in 1975. Southern rust, caused by *Puccinia polysora*, was evident in only a few fields in central and eastern Kansas. Some

stalk infections were reported, but no lodging from this disease was observed. Losses from common rust and southern rust are estimated at 1.5 percent.

The incidence of maize dwarf mosaic was somewhat reduced from levels in 1980, mostly due to lower populations of aphid vectors. This virus disease was reported from all districts except the northwest, west central, southwest, and central. Incidences in most fields surveyed were fairly low. Maize dwarf mosaic virus is a component of corn lethal necrosis disease along with maize chlorotic mottle virus; this disease again was active in parts of north central Kansas where it previously had been present. Its incidence, however, also was reduced from 1980. Estimated loss from maize dwarf mosaic and corn lethal necrosis is 1.5 percent.

Common smut, caused by *Ustilago maydis*, generally was not as widespread or damaging as in 1980. Incidences of ear or stalk infections seldom exceeded 10 percent in any of the fields surveyed during the growing season. Estimated loss is .5 percent.

Other diseases causing minimal losses statewide were holcus spot, caused by *Pseudomonas syringae;* crazy top, caused by *Sclerophthora macrospora;* brown spot, caused by *Physoderma maydis;* Fusarium leaf spot, caused by *Fusarium moniliforme;* Curvularia leaf spot, caused by *Curvularia* sp.; and northern leaf blight, caused by *Helminthosporium turcicum.* Some early planted corn in parts of east central Kansas was damaged by freezing temperatures May 10-11, but recovered fully.

Total estimated loss is 15 percent compared with 14.5 percent in 1980 and a five-year-average of 17.6 percent.

Sorghum

Three bacterial foliar diseases were the most common and widespread sorghum diseases in 1981. Bacterial streak, caused by *Xanthomonas holcicola*, was the most prevalent, distributed statewide. Bacterial spot, caused by *Pseudomonas syringae*, also was distributed statewide, but was not observed as often as bacterial streak. Bacterial stripe, caused by *Pseudomonas andropogoni*, was reported in light amounts from widely scattered fields in the northwest, southwest, north central, central, northeast, and east central districts. Estimated loss from all three bacterial diseases is two percent.

As with corn, stalk rots were the most damaging diseases. Fusarium stalk rot, caused by *Fusarium* sp., was the most widespread and damaging statewide. Lodging was evident in all parts of the state and most obvious in the northwest and southeast districts. Early planted sorghum appeared to be most affected. Charcoal rot, caused by *Macrophomina phaseolina*, was observed in one field in Graham County. Estimated loss from stalk rots is seven percent.

Rust, caused by *Puccinina purpurea*, was much more common in 1981 than in 1980; observed in all districts except the northwest. Infections generally were late over most of the state—losses estimated at one percent.

Adequate rainfall over much of Kansas allowed downy mildew, caused by *Peronosclerospora sorghi*, to appear in parts of the southwest, south central, central, east central and northeast districts. This disease appeared for the first time in Gray, Dickinson, Lyon, and Nemaha counties, establishing new county records. Incidences of the disease were fairly low in fields where it appeared. Statewide losses are negligible, but chances for a future outbreak increased with its spread in 1981 into the four counties mentioned.

The incidence of maize dwarf mosaic in sorghum was much reduced from 1980 levels. It was reported only from the southwest, south central and northeast districts. Incidences were low in infected fields; the red leaf stage of this disease was reported from only a few fields in south central Kansas. Losses are estimated at only a trace.

Other sorghum diseases observed in 1981 were sooty stripe, caused by *Ramulispora sorghi;* rough spot, caused by *Ascochyta sorghina;* and zonate leaf spot, caused by *Gloeocercospora sorghi.* They were most active in parts of northeast Kansas; losses are negligible on a statewide basis.

Total estimated loss is 10 percent compared with five percent in 1980 and a five-year-average of 7.4 percent.

Soybeans

Foliar disease activity increased in 1981 over levels seen during the 1980 drought. Bacterial blight, caused by *Pseudomonas glycinea*, was the most common foliar disease, distributed statewide but most obvious in the eastern third of Kansas. Brown spot, caused by *Septoria glycines*, was more prevalent in 1981 than in the past several years. It was observed in all districts except the northwest and west central. Downy mildew, caused by *Peronospora manshurica*, generally was limited to the eastern half of the state. Bacterial pustule, caused by *Xanthomonas phaseoli* var. *sojensis*, was observed in only a few fields in the southwest, central, and east central districts. Estimated loss from foliar diseases is one percent.

Soilborne diseases affected soybeans from planting to maturity. Seed rots and seedling blights were common in most areas when frequent rains kept soils wet after planting. Phytophthora root rot, caused by *Phytophthora megasperma* var. *glycinea*, was active in parts of eastern, central, and southwest Kansas. Rhizoctonia root rot, caused by *Rhizoctonia solani*, was observed in a few fields in all areas of the state. Stem canker, caused by *Diaporthe phaseolorum* var. *caulivora*, was found in a number of fields in north central, northeast, and southeast Kansas. Charcoal rot, caused by *Macrophomina phaseolina*, which was the most damaging soybean disease in 1980, was limited to parts of east central and southeast Kansas where some moisture stress occurred. Pod and stem blight, caused by *Diaporthe phaseolorum* var. *sojae*, was observed late in the season in parts of northeast and southeast Kansas. Estimated loss from soilborne diseases is four percent.

Surveys were conducted in southeast and east central Kansas for the presence of soybean cyst nematode (*Heterodera glycines*); no infested fields were found. This nematode is not known to exist in Kansas.

Total estimated loss is five percent compared to 12.1 percent in 1980 and a five-year-average of 8.8 percent.

Wheat

Disease losses in the 1981 Kansas wheat crop totaled 13.7 percent compared with 10 percent in 1980 and a five-year-average of 14 percent.

The number of bushels lost given in this report is based on the Kansas Crop and Livestock Reporting Service 1981 wheat yield estimate of 305 million bushels.

Kansas wheat growers this year dealt with freezing temperatures in early May, and hail, rain and flooding in late May and June. The northwestern half of the state was hit hardest by the May 10-11 freeze, but wheat in parts of southeast and east central Kansas was damaged as well. Unfavorable weather reduced yields more than any other factor.

Wheat streak mosaic caused an estimated loss of seven percent (21.4 million bushels). This compares with .3 percent in 1980 and a five-year-average of 1.1 percent. It should be noted that this figure assumes the loss from wheat streak mosaic was the original cause and disregards the late freeze damage. Wheat streak mosaic was most severe in 29 northwest and north central counties.

Moderate to severe infections also were observed in parts of central and eastern Kansas. Wheat curl mite populations no doubt increased in the volunteer wheat which was prevalent in parts of south central and western Kansas.

Estimated loss from soilborne mosaic is estimated at two percent (6.1 million bushels), the same as the 1980 estimate. The five-year-average is 3.6 percent. The wide use of resistant varieties in the past two years has greatly reduced the effects of this disease in Kansas. Soilborne mosaic was most severe in parts of north central Kansas this year, especially Washington County.

Leaf rust, caused by *Puccinia recondita* f. sp. *tritici*, caused an estimated loss of 1.5 percent (4.6 million bushels) compared with a trace in 1980 and a five-year-average of one percent. Infections generally were late and did not reach the flag leaves until late May and early June over most of the state. Most losses occurred in

the central, south central and east central districts, where Cobb Scale severity ratings ranged from five to 25 percent. Lower ratings occurred over the rest of the state.

Powdery mildew, caused by *Erysiphe graminis* f. sp. *tritici*, caused an estimated loss of 1.3 percent or 3.9 million bushels. This compares with .1 percent in 1980 and a five-year-average of .4 percent. This disease was most damaging in the eastern third of the state, with heaviest infections on some of the more susceptible semi-dwarf varieties. Powdery mildew appeared in late March in southeast Kansas and was prevalent over all of eastern Kansas by mid-April. Incidences of 60 to 100 percent were common, with some severe head infections in the northeast.

Take-all, caused by *Gaeumannomyces graminis* var. *tritici*, caused an estimated loss of .7 percent (2.1 million bushes) in 1981 compared with .6 percent in 1980 and a five-year-average of 1.4 percent. This disease was most prevalent in the northeast, east central, southeast, central, and south central districts, and a few severely infected irrigated fields in the southwest. Incidences ranged from a trace to 90 percent.

Losses from tan spot, caused by *Pyrenophora trichostoma*, are estimated at .7 percent (2.1 million bushels) compared with 3.5 percent in 1980 and a five-year-average of 1.8 percent. The numbers of pseudothecia on old straw were reduced greatly from levels observed in 1980, probably due to the dry fall, winter and early spring. Tan spot did not become prevalent until mid- to late April over most of the state. Little secondary spread was observed.

Losses from speckled leaf blotch, caused by *Septoria tritici*, are estimated at .5 percent (1.5 million bushels). This compares with one percent in 1980 and a five-year-average of one percent. This disease was observed as early as late February in Marion County, but did not become prevalent until mid-May. Speckled leaf blotch was most active in parts of eastern and southern Kansas which received generous rainfall in May, causing lesions to appear on the flag leaves.

Cephalosporium stripe, caused by *Cephalosporium gramineum*, was conspicuous by its absence in 1981. Losses are estimated at a trace compared with 1.3 percent in 1980 and a five-year-average of 1.5 percent. This disease was observed in only a few fields in central and north central Kansas; incidences were quite low. The dry conditions of the previous fall and winter may have been unfavorable for the pathogen.

Losses from loose smut, caused by *Ustilago tritici*, and bunt, caused by *Tilletia foetida*, are estimated at a trace. This is less than the .1 percent estimated loss from each disease in 1980, but the same as the five-year-average for both. These diseases were most common in central and eastern Kansas, but incidences seldom were above a trace in surveyed fields.

Losses from barley yellow dwarf also are estimated at a trace in 1981. This is the same as the 1980 estimate while the five-year-average is 1.2 percent. Although greenbug populations were high during March and April, this disease was not observed until late April and early May. Barley yellow dwarf was most often observed in the northwest, west central, central and northeast districts.

No losses from stem rust, caused by *Puccinia graminis* f. sp. *tritici*, occurred in 1981; none have occurred since 1976. Although infections were observed most often in the central and south central districts in late May, they were too late to cause damage. It was thought that some regrowth after the May 10-11 freeze might support stem rust infections, but no stem rust was observed on the new tillers.

A survey of volunteer and seeded wheat in 88 Kansas counties was conducted in October and November to determine the distribution of wheat streak mosaic virus and its vector, the wheat curl mite (*Eriophyes tulipae*).

Wheat streak mosaic was observed in seeded wheat in single fields in Greeley and Kearny counties.

Generally mild weather in October and early November was favorable for fall infection of wheat streak mosaic. Fall infections generally are more damaging

than in spring. Based on the results of the survey, it appears wheat streak mosaic may cause considerable damage to the 1982 Kansas wheat crop.

Fruits and Vegetables

Plentiful rains during April allowed cedar-apple rust, caused by *Gymnosporangium juniperi-virginianae*, to develop to damaging levels. Some unprotected apple trees in eastern Kansas nearly were defoliated by this disease. Apple scab, caused by *Venturia inaequalis*, was not a problem in 1981 even though conditions were favorable for its development. Bacterial leaf spot of peach, caused by *Xanthomonas pruni*, was obvious in parts of south central Kansas. Some of the peach crop in parts of central and eastern Kansas was lost in the freeze of May 10 and 11. Strawberry leaf scorch, caused by *Diplocarpon earliana*, was also observed in parts of central and eastern Kansas.

Damping-off of spring-planted vegetables was common as soils remained cool and wet. Blackleg of potato, caused by *Erwinia* sp., was present both in home gardens and commercial fields. Septoria leaf spot of tomato, caused by *Septoria lycopersici*, was common during the summer and fall. Powdery mildew of peas and beans, caused by *Erysiphe polygoni*, also was common.

Turf

Several turf diseases were common statewide. They include dollar spot, caused by *Sclerotinia homoeocarpa;* Fusarium blight, caused by *Fusarium* sp.; leaf spot, caused by *Helminthosporium* sp.; rust, caused by *Puccinia* sp.; powdery mildew, caused by *Erysiphe graminis;* and brown patch, caused by *Rhizoctonia solani.* Favorable weather conditions, many times aided by improper cultural practices, allowed these diseases to develop. Stripe smut, caused by *Ustilago striiformis*, was reported from WaKeeney in Trego County.

Trees and Ornamentals

As with other crops, trees and ornamentals were affected by several diseases in 1981. Among the most common were sycamore anthracnose, caused by *Gnomonia platani;* powdery mildew of rose, caused by *Sphaerotheca pannosa;* black spot of rose, caused by *Diplocarpon rosae;* and Dothistroma needle blight of pine, caused by *Dothistroma pini.* Some Diplodia tip blight of pine, caused by *Diplodia pinea*, also was observed. Some pines also were damaged by freezing temperatures in May. Crab apple scab, caused by *Venturia inaequalis*, was common in parts of northeast Kansas during the summer. Fireblight, caused by *Erwinia amylovora*, was observed affecting various hosts, such as crab apples, hawthornes and pears, during late spring and early summer. Rust of cottonwood, caused by *Melampsora* sp., was severe in most areas in the fall.

Federal and State Quarantine Programs

In 1980, the Animal and Plant Health Inspection Service of the USDA gave its barberry eradication program to the state of Kansas. This ongoing program, which began in Kansas in 1923, originally was intended to reduce the spread and formation of new races of stem rust of wheat by removing susceptible barberry bushes from Kansas and other Great Plains states.

When the Kansas portion of the barberry eradication program was given to the entomology division approximately 30 sites where susceptible barberry bushes had been removed needed to be checked for regrowth or new bushes. These sites were examined in January and February and no regrowth or new bushes were found. The nursery inspection portion of this program will continue as part of the annual nursery inspection program.

The barberry eradication program, combined with increased levels of stem rust resistance in modern wheat cultivars, has done much to reduce the severity of stem rust in Kansas and the Great Plains.

KEN BOUGHTON
DIRECTOR

MARKETING DIVISION

The market and development programming of the marketing division is varied to enhance the marketing of products from Kansas domestically and in foreign markets.

Domestic Marketing—
A "Billboard" for Kansas Products

The 1980 move of the Kansas State Board of Agriculture offices to a building which formerly housed a department store gave the marketing division a chance to promote Kansas agricultural products daily on the "main street" of Topeka. One of the former department store display windows and two display cases were retained in the new design. The display window actually is a downtown billboard for agricultural products. Exhibits are rotated on a monthly basis. They have promoted every Kansas agricultural product from apples to wheat and displayed some of the responsibilities and programming of the divisions of the agency.

The Board of Agriculture gives Christmas gift suggestions in its display window in downtown Topeka.

This poultryman at the Kansas Poultry Association's annual meeting not only made his own omelet; directed by "Omelet King" Howard Helmer, he completed a quiche blindfolded to show how easily eggs can be used and promoted.

Promoting the Incredible Egg

Four projects cooperatively funded by the marketing division, Kansas Poultry Association and the American Egg Board were conducted in 1981. One of four projects was completed in April when the department window exhibit featured eggs.

The second project was conducted in August at the Kansas Association of Vocational Home Economics Teachers conference. Margaret Ann Berry spoke to 330 teachers on "Innovative Teaching Methods" using eggs as a teaching vehicle. Her husband, Joe Berry, Oklahoma State University Poultry Extension Specialist, provided a workshop titled "From Hen to Home," giving technical information on eggs. All teachers received a packet of egg educational materials for the classroom.

The third project completed was an exhibit at the Kansas State Fair. Located in the Agriculture Building, the exhibit gave fair visitors the opportunity to test their knowledge of the egg industry. Recipes and informational materials were distributed. The final project included an exhibit and "omelet" workshop at the Midway USA Regional Food Service Exposition in Wichita. The omelet workshop was conducted by Howard Helmer of the American Egg Board. The same week, members attending the Kansas Poultry Association's annual meeting also prepared their own omelets for lunch under the direction of "Omelet King" Helmer.

A Trademark for Kansas Products

"From The Land of Kansas," the Kansas agricultural products trademark, soon will help consumers identify another Kansas agricultural product in the marketplace. McAnally Enterprises, Inc., producers of Maple Hill eggs, is working with the marketing division to implement the use of the registered trademark on eggs packed at Maple Hill. As a marketing tool, the trademark is used to identify and promote Kansas products domestically and in export markets. Kansas companies and individuals may request authority to use the official trademark by contacting the marketing division. This mark allows consumers to choose quality Kansas products in the marketplace and to stimulate pride in the important Kansas industry of agriculture!

Jerry Dudley, marketing division, is pictured with the four young men from Mexico who lived in Kansas ranches in 1981. They got a total picture of the Kansas livestock industry from the ranches to tours of Kansas State University and the American Royal.

Export Marketing

Four young stockmen from Mexico were the first participants in the Mexican Ranch Youth Exchange Program sponsored by the Kansas State Board of Agriculture and the Kansas Livestock Association. The four, ranging from 18-22 years old, are sons of Mexican ranchers. They spent the months of October and November as guests in Kansas. They lived and worked on individual Kansas ranches—the Dickinson Simmental Ranch, Gorham; Gates Angus Ranch, Coldwater; Laflin Angus Ranch, Olsburg; and the Staats Hereford Ranch, Sedan. During their visit, they learned management techniques used in producing quality purebred livestock in Kansas.

The youth exchange program started through a contact established with the Mexican Livestock Association during the trade mission by the Kansas State Board of Agriculture earlier in 1981. The Kansas Livestock Export Action Committee is seeking to increase foreign demand for Kansas livestock. The exchange program is establishing working relationships with these future livestock producers so that sales of Kansas purebred cattle can be developed. Future exchange visits are planned.

Kansas Commodity Commissions Emphasize International Market Development

Kansas feed grain and soybean commodity check-off commissions have entered their fifth year with programs which focus on promotion, market development, and campaigns of development for their respective commodities. With a growing U.S. supply of feed grains and oil seeds, increased emphasis on market development must be addressed. The commissions have taken this premise in developing their activities.

Feed Grain Marketing Efforts

The corn and grain sorghum commissions' support of the U.S. Feed Grains Council (USFGC) has been beneficial. In the two decades since 1960, consumption of feed grains in the U.S. rose only 30 percent. At the same time, production rose 65 percent. As a result surpluses mounted, leaving only two alternatives—find overseas markets or watch the bottom fall out of prices to producers. Despite government programs designed to cut production, American feed grain yields intensified. With producer support, agencies such as the USFGC developed export markets at a rate of 556 percent from 1960 levels. Intensive programs of education and service to assist less-developed countries upgrade their food supplies, food quality and food economics have been undertaken. As programs upgrade a country's food system, they simultaneously create a demand for feed grains. The effort requires country-by-country economic analyses, improvements of herd and flock production, and feed technology and dietary education. Working with foreign producers in their countries to demonstrate better use of feed grains in livestock rations, establishing pilot feed mills to improve utilizations and helping set up efficient farm supply and market networks to increase production are carried out through the council's 14 foreign offices.

Many countries today are well-developed markets for American feed grains. Others are in the pioneer stage. Japan, a well-developed and excellent market for corn, has progressed beyond simple food needs to industrial uses, such as corn starch. In the last decade Japan's high technology industrial market has grown so fast that the demand for U.S.-grown corn has risen 250 percent to 1.8 million metric tons per year.

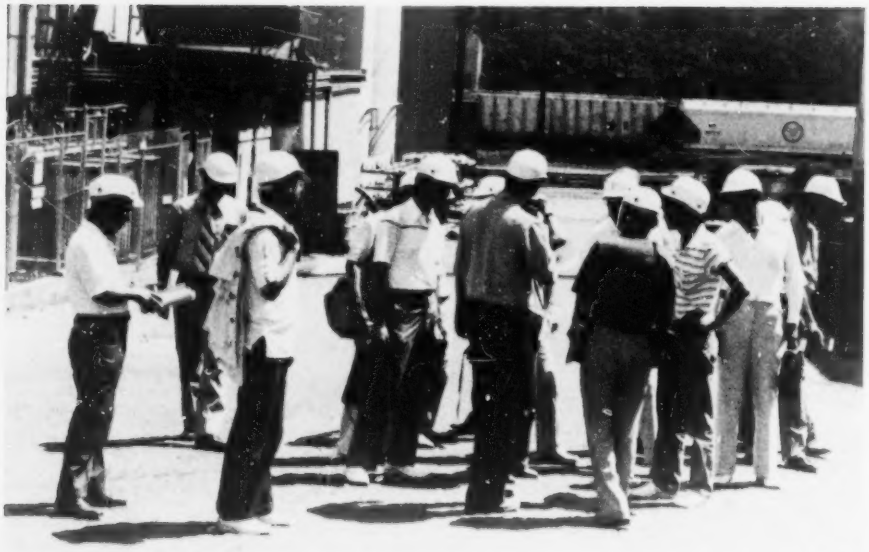
Southeast Asia is in the early development stage. After years of sluggish activity, the area is discovering successful growth in the form of high energy diets, efficient animal breeding and sound farm management techniques. In-depth Feed Grains Council seminars, modern projects and consultation with farmers in the Phillipines, Malaysia, Singapore and Thailand are demonstrating the gains producers can achieve while cutting costs through better breeding stock and high energy diets. Producers are impressed to learn that doubling the volume of corn in swine rations improves animal performance and reduces the cost by as much as 15 percent. As such programs take hold, today s 1.2 million metric ton feed grains market in Southeast Asia should expand eight to ten percent.

Soybean Promotion

Similarly, the Soybean Commission's support to the American Soybean Development Foundation has provided the assurance of a successful domestic and international market for soybeans and their products. The foundation has developed an aggressive program approach which successfully has created new or expanded demands for soybeans overseas.

About half of the U.S. soybean crop is exported. Market development activities of the Soybean Development Foundation have been designed to maintain current demand and to expand and create new markets for soybeans and soybean products. The foundation conducts 199 activities in 76 countries. They include product promotion, participating in fairs and conferences, feeding trials, trade team visits to the U.S., overseas seminars with U.S. technical consultants, and literature translation.

Other emphasis has been developed to improve the quality of soy oil, to develop possible uses for soybean hulls and to develop additional ways of incorporating soy protein into traditional diets. Using research funded by producer check-offs, a major soy oil manufacturer and distributor introduced Germany's first identified soy oil. As a result, soy oil consumption in Germany requires about 112 million bushels of U.S. soybeans. Programs in Mexico have concentrated on soy milk, textured soy extenders and soy flour. The addition of soybeans to tortillas improves their protein content. In Mexico City alone, an additional six million bushels or 200,000 acres of soybeans would be utilized if tortillas were made with



The Kansas Commodity Commissions hosted 12 foreign trade teams on visits to Kansas in 1981. Pictured is one of those teams, a group of feed millers from Japan, on a tour of Midwest Solvents in Atchison.

a 10 percent soybean mixture. Mexican soybean imports doubled in 1980 with a purchase of 55 million bushels of U.S. soybeans.

In Japan, feeding trials have increased the level of soybean meal in feed rations from seven to 11.1 percent over the past four years. A goal of the ongoing program is to achieve a ration containing 14 to 15 percent soybean meal. Each half percent increase in this demand requires an additional 1.5 million bushels of soybeans, or the equivalent of 50,000 acres. Japan now buys 160 million bushels, three and one-half times the 1981 Kansas crop.

The worldwide use of soybeans is expected to increase 10 percent this year. Continued market development activities around the world will help increase the use of soybeans and reduce the supply.

Commissions Continue Research

Kansas State University researchers working on projects funded by each of the commodity commissions provided further results in the areas of disease and insect problems in corn, grain sorghum and soybeans.

Animal science researchers have utilized a grant from the Kansas Grain Sorghum Commission to utilize off-quality sorghum in the feeding of ruminants. The study evaluates the practice of feeding out-of-condition grain sorghum. Tests will be conducted to learn if changes in the appearance and quality of grain affect ruminants when the deteriorated grain is incorporated into regular feed rations. Researchers believe the government program allowing on-farm storage of grain for three years will result in more grain deterioration. Even 10 percent of Kansas grain in storage going out-of-condition would result in millions of dollars in losses for Kansas farmers. The research will determine if the use of some out-of-condition sorghum is detrimental in feed and at what levels it can be fed safely.

Agronomy and plant pathology researchers, through support of the Kansas Soybean Commission, are investigating breeding strategies used to develop soybean varieties adapted to Southeast and Western Kansas. The investigation will study techniques to improve the innoculation used to screen varieties for the fungus which causes charcoal rot, a persistant soybean disease in Kansas.

Corn researchers are investigating stalk rots and virus diseases in projects funded by the Kansas Corn Commission. Researchers believe corn kernels in-

fested with a seed-borne innoculum are a major contributor to the development and incidence of stalk rot disease in field-grown corn plants. The elimination of the pathogen and a decrease in destructive stalk rots is the objective of the research.

International Grains Program

The International Grains Program at Manhattan hosted 28 teams with 162 persons involved with grain processing, storage and purchasing of feed grains, soybeans and wheat. Short course activities presented by KSU Grain Science Department faculty provided technical training in processing and utilization of U.S. grains. Such training aids in developing market incentives for U.S. grain commodities and ultimately develops international markets. International visitors to the grains program have a new appreciation of the efforts of Kansas and U.S. producers to produce, store and deliver high quality grains for their uses. Knowledge of the types of grains, of the merchandising systems and the efforts to identify and maintain qualities in U.S. grain passed on to potential foreign purchasers can be expected to have a positive influence on their buying habits.

Patton is Honored

Marketing division employee Charlene Patton received a special award from the Kansas Pork Producer's Council at its annual meeting in Wichita.

Patton, a home economist, has worked with the KPPC and other Kansas commodity groups for several years.

She is actively involved in coordination of commodity group exhibits each year during the Kansas State Fair. She gives many pork demonstrations on television programs across the state, and promotes pork at conventions and shows.

Patton attends meetings of the Kansas Porkettes, holds workshops on promotion and cooking techniques, and works with home economics teachers to develop pork educational programs.

Representing the Kansas Pork Producers Council, Doyle Talkington poses with Charlene Patton of the Kansas State Board of Agriculture. Patton received the KPPC's award for special service to the swine industry in 1981.

LARRY D. WOODSON
DIRECTOR

MEAT AND POULTRY INSPECTION DIVISION

History

In 1967, the U.S. Congress passed the Federal Wholesome Meat Act. This law brought all slaughtering and processing plants under federal jurisdiction whether they were doing business within the state or across state lines. The act also gave each state the option of developing its own program, with 50 percent of the funding provided federally as long as the state program was determined to be "equal to" the federal.

At the urging of the livestock and meat industry, the Kansas Legislature passed the Kansas Meat and Poultry Inspection Act in 1969. Kansas was the 49th state to pass mandatory legislation but the sixth to develop a state program "equal to" federal.

The Kansas Meat and Poultry Inspection Act requires all meat and poultry slaughtering and processing plants that sell products currently within Kansas to be inspected by the Kansas Board of Agriculture. Meat and poultry sold across state lines must be federally inspected.

Producers slaughtering animals of their own production on their own premises for their own use are exempt from the provisions of the act and regulations. Retail stores and restaurants also are exempt, providing they handle only inspected and passed meat and meat products and are under sanitation inspection by some other state agency.

Plants that slaughter either livestock or poultry and those processing carcasses into meat or poultry products in intrastate commerce come under the provisions of the act. These can be broken down into the following categories.

Inspected Plants—Inspected plants are those in which inspection is performed before, during and after the slaughter of all animals. The plant also is inspected for sanitation, processing and product labeling. Carcasses and parts of carcasses bear the inspection legend and can be sold to all outlets within the state.

Custom Plants—Custom plants slaughter or process animals and carcasses for their owners to be used by the owner, members of the family, former family members, nonpaying guests and employees. Ante- and post-mortem inspection of the animals offered for slaughter is not provided to these plants, but the plant is checked periodically for sanitation, labeling and adulteration. No product is bought or sold. The carcasses and packages are stamped "Custom—Not For Sale."

Combination Plants—In a combination plant, all product that is to be sold into intrastate commerce is inspected (just like the inspected plants), and all product derived from the slaughter of custom animals is not inspected (just like the custom plants).

This meat and poultry inspector is performing a postmortem rail inspection of a hog carcass. Some of the conditions he could find are arthritis, abscesses, diamond skin, nephritis, tuberculosis or dermatitis.

Curtis Exempt Plants—As an afterthought to the Wholesome Meat Act of 1967, Senator Curtis of Nebraska successfully introduced the Curtis Amendment to the Wholesome Meat Act. This in essence provides that custom plants may buy and sell either state or federally inspected and passed product, providing that either a physical or time separation is maintained between the inspected and uninspected product. The Kansas Legislature followed with the same amendment to the Kansas Act.

Meat and Poultry plants registered with the division are as follows:

183 Inspected Plants
49 Custom Plants (this includes 23 Curtis Exempt operations)
10 Combination Plants
60 Other (includes jobbers, distributors and pet food manufacturers)
65 Federal Plants

The Kansas meat inspection program is designated "equal to" the federal meat inspection program. In order to maintain the "equal to" federal status, state inspected plants are reviewed quarterly by the federal meat inspection service. A random sample is drawn from the various types of plants which are reviewed. Seven basic criteria are used for evaluations, including ante-mortem and post-mortem inspection; reinspection (processing); sanitation; water supply; sewage and waste material control; pest control; and condemned and inedible material control. If federal review officers find any of those items unacceptable for any reason, a plant is given a five-working-day written notice to correct the deficiencies, then re-reviewed for acceptability. A total of 57 Kansas plants were reviewed by federal officials in 1981. Only two of these were found to be unacceptable during the initial review; both were acceptable in the follow-up review.

The division has 81 full-time and 120 part-time employees. The part-time employees are practicing Kansas veterinarians employed to make final dispositions on suspect animals.

1981—The Year In Review

The year 1981 began with some 30 states still operating a state meat inspection program. During the year four states turned inspection programs over to the

Control of restricted ingredients is essential to processing inspection. Here an inspector samples a sodium nitrate cure mix to assure compliance with the meat inspection regulations.

federal government. Two more states may lose their programs in 1982. This trend had caused some concern for state program officials, but the word from USDA is that Washington wants to help the states maintain their meat inspection programs rather than turn them over to federal. The immediate outlook for existing state meat inspection programs therefore is good.

For many years state-inspected meat plant operators have been asking the following question of USDA. "If our state inspection program is 'equal' to the federal inspection program, then why can't our state product be shipped across state lines and have access to the same market as federally inspected (and imported) product?" Until recently this question had fallen on deaf ears, but with the recent announcement that kangaroo meat from Australia had been labeled as "boneless beef" and shipped to various locations across the country, it appears that legislation will be introduced to allow state-inspected product to be shipped across state lines. Battle lines have been drawn. The federal meat inspectors' union and the American Meat Institute are against the idea; the American Association of Meat Processors and state-inspected plant owners are in favor of the issue. At this writing the outcome is unclear.

In spite of high interest rates and extremely tight monetary supplies, remodeling and new construction projects were completed at plants in the cities of Yoder, Morganville, Ellsworth, St. Marys and Eudora. In addition, new faces joined the meat industry in Kansas as change-of-ownership reviews were completed for plants in Topeka, Bennington, Beloit, Fairview, Fredonia, Dwight, Plainville, Oakley, Waverly, Moran and Howard.

The division's first fully inspected rabbit slaughter and processing facility was completed at the end of 1981 and began operation in early 1982. Numerous inquiries concerning rabbit slaughtering and processing have been received over the years, but until now no one had constructed a plant exclusively for this purpose. As would be expected, the rabbit plant owners are busy trying to establish a market for their product.

Division inspectors continued to answer requests by various state institutions to assist with problems related to the purchase and specifications of meat and meat food products, or vendor compliance with those specifications. Certain institutions, for example, require a leaner ground beef for special dietary needs of their patients. During fiscal year 1982 (June 30, 1980-July 1, 1981), 612 samples were

The first state inspected rabbit slaughtering facility officially opened in 1981. On the left, rabbits are shown receiving antemortem inspection. As pictured on the right, after a careful postmortem inspection, the slaughtered rabbits are placed on racks and sent to the cooler for a final inspection of the carcasses before processing. Ante- and postmortem inspection of all animals used for food is essential to detect diseases or conditions which would render meat unfit for human consumption.

collected through this institutional compliance program. Two hundred seventy-six of those samples did not meet institutional specifications. As a result of this institutional sampling program more than 116,000 pounds of product were identified as being out of compliance with the institutional specification. In addition, the laboratory analyzed 1,853 samples from the fully inspected state plants. One hundred sixteen of these samples were found to be in violation of the Kansas Meat and Poultry Inspection Act and corrective measures were taken. Six samples were analyzed in conjunction with the federal-state sampling program. Under this program Kansas laboratory procedures and results are cross-checked and verified by the federal laboratory in St. Louis. This program assures that results obtained by the meat and poultry inspection laboratory are accurate.

Again in 1981 the division cooperated with USDA in the national residue sampling program. Samples taken by division personnel are sent to be analyzed by federal laboratories to evaluate the residue status of specific animal populations.

The categories of compounds covered by this program are chlorinated hydrocarbons (e.g. chlordane), organophosphates (e.g. malathion), antibiotics, sulfas, hormones (e.g. DES), trace elements, PCB's and various drugs. Samples assigned to Kansas plants are proportional with state volume compared to national volume of slaughter of the same classes of animals. This procedure assures that sampling from state plants is comparable to the rate for federally inspected plants.

Training of inspection personnel is of paramount importance to the division. The inspection program is only as good as the inspectors who are employed. In 1981, more than 1,250 hours were spent training new inspectors and providing continuing education for existing personnel.

During the 1981 session of the Kansas Legislature, Senate Bills 318 and 319 were passed. These bills amended the Food, Drug and Cosmetic Act and the Meat and Poultry Inspection Act so that "water added" hams now are permitted in

Kansas. Prior to the passing of these two bills, Kansas was the only state that did not allow "water added" hams.

Every ham that has been cured is water added as the curing compounds are introduced into the ham. The cure mixture is dissolved in water and injected into the ham, then the ham goes into the smokehouse where all the excess water is cooked out.

If a ham is conspicuously labled "water added" this means it may contain up to 10 percent additional water over the weight of the uncured ham. "Water added" hams generally are cheaper in price and quite a bit "wetter" when cut open. The Kansas consumer now has the choice whether or not to buy the "water added" ham.

Division personnel have started to notice a growing number of portable barbecue units primarily in retail stores. The normal operating procedure involves the owner of the barbecue unit purchasing product from the meat market of the retail store. He or she then takes the product outside to the parking lot (usually where the cooker is located), barbecues it, and brings it back into the retail store to sell to the public.

A meeting was arranged with the Bureau of Food and Drug, Bureau of Food Service and Lodging, and the weights and measures division of the Board of Agriculture primarily to discuss who has the responsibility of inspecting these units. It was decided if the unit was parked on the premises of the retail store, Food and Drug would inspect it. If the unit was not on the premises, it could qualify for inspection only if it was permanently located. Otherwise, the unit would not operate. It also was determined that the person who operated the unit could use only inspected and passed product. A license—if required—would have to be obtained from the Bureau of Food and Drug or the Bureau of Food Service and Lodging. Finally, if the owner of the barbecue unit does not have a restaurant license from Food Service and Lodging, then all product would have to be sold by weight, not by price.

More and more buffalo meat is being found in retail stores and restaurants. Under the Kansas Meat and Poultry Inspection Act, buffalo are not required to be inspected. The Fish and Game Commission does not consider buffalo a game animal since they primarily are raised in captivity under controlled conditions. Furthermore, a retail store or a restaurant can only handle inspected and passed meat products to remain exempt from inspection. The basic problem, then, is that numbers of buffalo are increasing in the state; more and more retail stores and restaurants are starting to handle buffalo; but the division has no statutory authority to inspect the animals.

The division thinks the solution to the problem will be to add buffalo inspection to the Kansas Meat and Poultry Inspection Act.

Departmental Action

A significant and important part of a complete and "equal to" federal program, as required for 50:50 funding, is the compliance program.

The compliance program reviews processing, shipping, handling and other allied industries engaged in the transportation, storage and distribution of meat and poultry products in commerce. The compliance program assures that products are wholesome, free from adulteration, and truthfully labeled when they reach the retail and consumer level.

The compliance staff has three basic purposes: detecting and controlling adulterated or misbranded products so they do not enter consumer food channels; detecting violations and documenting evidence for administrative or legal action; and educating members of the regulated industry and consumers about requirements.

Compliance work is performed by one full-time compliance officer, who is cross-licensed by federal, and seven lay supervisors who do compliance work on a part-time basis (four hours per week).

The scope and variety of Kansas meat and poultry inspection compliance staff activities is indicated by the following examples of action taken.

—640 reviews were made of establishments where meat is prepared, stored, handled, or further processed.

—11 consumer complaints were investigated.

—Voluntary destruction of 11,200 pressure sensitive labels was ordered. These labels with federal inspection legends were printed in error.

—2,638 pounds of various pork products voluntarily were destroyed due to improper curing techniques.

—A Pomona man was found guilty of illegal farm slaughter and fined $1,000 by the Franklin County Court. The court suspended the fine on the condition that the defendant not violate the Kansas Meat and Poultry Inspection Act.

—90 pounds of uninspected ground beef was found and detained at a retail store. The product was allowed to be returned to the producer for use by himself only.

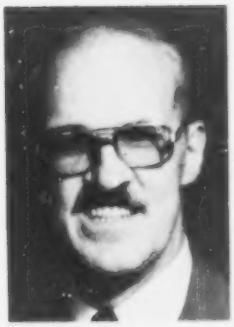
—Voluntary destruction was obtained on 650 pounds of cure mix, due to low levels of sodium nitrite.

—An El Dorado man and wife both were found guilty of illegal farm slaughter by the Butler County District Court. They each were fined $1,000 and sentenced to one year in jail. The court probated both the fine and jail sentence under the condition that these individuals not do any slaughtering (not even for themselves). After a year, the court will decide whether these individuals can return to slaughtering their own animals.

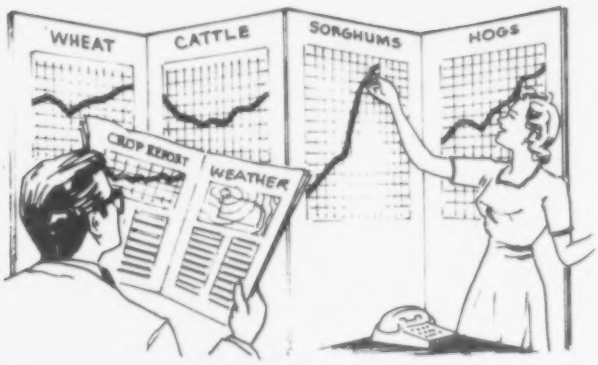
In Conclusion

More than 130,000 animals (cattle, sheep, swine and goats) were slaughtered in 1981 under the state meat inspection program. A total of 78,800,000 pounds of meat was processed under state meat inspection in 1981. It is the fundamental intent of this division to provide Kansas consumers with a wholesome, properly labeled and unadulterated supply of meat and meat food products.

A pre-operational check of all equipment is done before any slaughtering operation begins. Acceptable sanitation eliminates the possibility of product adulteration by food-borne bacteria.



M. E. JOHNSON
STATE STATISTICIAN



STATISTICAL DIVISION

The statistical division operates as the Kansas Crop and Livestock Reporting Service, a cooperative function of the Kansas State Board of Agriculture and the Statistical Reporting Service of the U. S. Department of Agriculture. Continuing an agreement of more than 50 years, it is a primary example of the state of Kansas working together with the federal government to provide efficiency in governmental operations.

The federal program provides state, regional and national estimates for major commodities. The state program complements the federal by providing county data and additional detail on commodities of particular importance to Kansas. The state program also provides a more widespread distribution of information important to the decision-making process for Kansas farmers.

Reports Reduce Market Uncertainty

In looking at agricultural statistics, not everyone sees the same thing. Some people heap praise on crop and livestock reporting and continually ask for more data. Others would do away with the service. On December 22, 1981, a forecast was released of 1982 winter wheat production in the U.S. It totalled 2.13 billion bushels—a record high production. Some saw this report as doing little more than further depressing already depressed wheat prices—and a number of news and headline writers encouraged that thought. Others, however, saw the report as a stabilizing influence on a marketplace which already was making a wide range of guesses regarding the 1982 wheat crop. This report had to have a very sobering influence on spring wheat growers. As a result they might want to reduce wheat acreages for 1982 and shift to other crops.

Salute to Crop Reporters

The unsung heroes of the entire crop and livestock reporting system are those farmers, ranchers and persons in agribusiness who give freely of their time to provide data for the reports. Voluntary reporters range from young people just starting to those who have many years of experience with Kansas agriculture. Their service provides special benefit to the entire agricultural community and contributes to the overall efficiency of the total economy. Reporters sometimes feel overburdened with forms and requests for information. Every effort is made to reduce that burden—a major reason why this is a state/federal cooperative office and can utilize the same surveys. They also should remember that every report issued has been requested by data user groups and authorized and funded by Congress or the Kansas Legislature.

Crop and livestock statistics, especially forecasts, can be used in individual decision-making and helping to prepare production and marketing plans. They

are used extensively by farm organizations and others to define and describe the current agricultural situation as they speak to Congress and legislators on behalf of the farm constituency.

Carefully Constructed Reports

Crop and livestock reports are constructed carefully by trained agricultural statisticians who have extensive experience in agriculture and in statistical survey work. The top five agricultural statisticians in the Kansas Crop and Livestock Reporting Service grew up on farms, graduated from agricultural colleges and possess a combined total of 133 years of experience in crop and livestock reporting activities.

Sampling Frames

For many years rural mail carriers randomly left report cards for crop acreage and livestock numbers as they delivered mail throughout the rural areas. These cards asked for acreage intentions as well as final plantings. A similar method was used for reporting mid-year and end-of-year livestock numbers. This was strictly a random distribution left up to the judgment of the mail carrier. Direct mail surveys also have been used for many years and depend on the cooperative spirit of Kansas farmers for a representative response.

Because of various shortcomings of these sampling methods there was need for improved statistical methodology. Consequently, area frame sampling was adopted by the Crop and Livestock Reporting Service and first used in 1954. An area frame consists of small segments of land (one or two miles square) that are outlined on county highway maps and matching aerial photos. The first master sample nationwide was compiled in the early '40s at Iowa State University. It was a cooperative effort of USDA and the Bureau of the Census. These land segments were based on minor civil divisions. Each sampling unit included about four farms. Experience shows the most efficient land segment size is about one square mile.

In 1975 a new method of identifying land areas was utilized in Kansas. Stratification based on land use is derived from identifying general areas that fall into four broad categories: Intensive cultivation, primarily for crop production, and with at least 15 percent or more of the total land cultivated; extensive agriculture, which is primarily grazing land used for livestock production and has less than 15 percent of the acreage cultivated; non-agricultural land, such as parks, cemeteries, forests, lakes, etc.; and developed areas such as cities and industrial locations.

The present land area samples being used in Kansas consist of 435 segments selected with a certain probability based on the land usage definitions just described. About 20 percent of these segments are rotated out each year and new segments are brought in for surveying.

A list sampling frame contains a listing of all Kansas farmers and ranchers. The compilation of such a list is a difficult task. For one thing, the portion of the total population that is involved in farming and ranching has declined through the years. It also has changed in that America now is a much more mobile society with numerous farming units within an operation and a variety of partnership and corporate structures.

In recent years, much time and effort have gone into compiling a list containing the names and addresses of all farmers and ranchers in the state of Kansas. Presently there are about 76,000 farms in the state. Creating a list frame is frustrating, since it is impossible to gather 100 percent of all names and addresses and have them current at the same time. There is constant change in the operators of Kansas farms and ranches. One advantage to the list sampling frame is that current control data such as land-in-farm, acres of wheat, and number of cattle and hogs can be associated with a name and address and used as criteria for sample selection for individual surveys.

Multiple frame sampling is the combination of the area frame and list frame. This method is used for surveying hogs, cattle, farm labor and wages and farm production expenditures. Since the list never can be complete, the area frame, which represents the entire state of Kansas, and therefore in fact includes every farming unit, accounts for any operation that might be missing from the list. The area frame, therefore, is used to measure the incompleteness of the list.

One of the most current sources of sampling consists of using LANDSAT satellite imagery. LANDSAT I no longer is operational. LANDSAT II and III both developed technical problems during 1980 but did fairly well during 1981. LANDSAT D is scheduled for launching some time in the summer of 1982. In 1981 an estimate of wheat acreage planted for harvest was provided by the LANDSAT program.

Collecting Data

The method of data collection depends on the type of sampling frame used, the nature of the data, the amount of time allowed for collection and finally the funds available.

Much of the data are gathered by mail reports, the least expensive method of data collection. The area frame approach is used twice a year, however, to establish major benchmark estimates. The June Enumerative Survey gives an indication of spring-planted crop acreage and mid-year livestock numbers. The December Enumerative Survey provides an indication of the planted acres of wheat and year-end livestock numbers. Every person who operates land in a sample segment, usually a mile square, is interviewed to determine crop acreage and number of livestock.

In June, all 435 segments are included. In December only a portion of the operators contacted in June are sampled. These data are collected by some 50 part-time field enumerators located throughout the state.

A subsample of the operators identified in the December Enumerative Survey and June Enumerative Survey are used for objective yield surveys—wheat and sorghum for grain. Fields of the crop to be measured for yields are randomly selected. Two units are set out in each sample wheat field; three units in each sample milo field. Plant and head counts are made throughout the growing season to give monthly and final pre-harvest indications.

A third area frame survey (Farm Production Expenditures) usually is conducted in February. The sample segments are screened to determine the qualified operators to answer a questionnaire on the various production expenses.

All data collection methods have advantages and disadvantages as shown.

Advantages	Disadvantages
Mail Survey	
1. Relatively inexpensive	1. Takes more time to send out questionnaire and return
2. Allows respondent time to refer to records if desired	2. Respondent may not return questionnaire
3. Respondent can answer at own convenience	
Telephone Survey	
1. Provides timely data	1. May disturb respondent at an inconvenient time
2. If respondent misunderstands question, enumerator can explain	2. May not allow much time for referral to records
3. Less expensive than a personal visit	3. May require many attempts to reach respondent by telephone
Personal Interview	
1. Allows completion of more complex surveys	1. Very expensive as compared with other means of contact

2. Provides a personal touch and gives respondent an opportunity to discuss questions if desired
3. Generally provides better communication

LANDSAT II and III satellites are used to collect data via remote sensing on a research basis in Kansas. This also has some disadvantages which have not been overcome completely, such as: very expensive, not very precise, data not provided in timely manner, dependent on cloud-free weather, and analysis and interpretation are dependent on expensive and complex computer programs.

Hog and Pig Estimates

The Crop and Livestock Reporting Service prepares and publishes quarterly estimates of hog and pig inventories and births. These reports provide data users with basic statistics on pork production. The reports relate to March 1, June 1, September 1 and December 1. Items estimated are inventories by class, number of sows farrowed, number of sows to farrow and the pig crop. Farrowing intentions include the number of sows expected to farrow within the next three months and the period four to six months away. Actual farrowings may differ significantly from reported intentions due to unexpected economic, biological and environmental conditions. County data on hogs include December 1 inventory, total value of that inventory and the total pig crop for the marketing year ending November 30. These estimates appear each year in the "Farm Facts" section.

Estimates of hog and pig numbers are based on multiple frame probability sampling. This method is an efficient tool for compiling reliable statistics. Each individual in the universe has a certain chance of being selected in the sample which permits an unbiased estimate of all hogs and pigs with an accompanying measure of reliability or accuracy.

The number of producers contacted for the December report numbered 1,850 from the list frame. In Kansas, about 90 percent of the hog and pig estimate is represented by the list frame; the remaining 10 percent is estimated by the area frame. In other words, the list frame was about 10 percent incomplete.

After the data are collected, several indications are used in setting the hog and pig estimates. The direct expansion total is based on the sampling rate. For example, if one producer in 100 in a particular stratum or group was included in the sample, the expansion factor for that stratum would be 100.

Another indication is a ratio estimate based on the change from one survey to another for matched or identical reporters. The most commonly measured ratio is expressed as "percent of previous year."

The balance sheet indication also is useful. The balance sheet begins with the previous quarter inventory, adds in the pig crop and imports, to arrive at the total supply. Estimates of slaughter, exports and deaths are combined to derive total disappearance during the quarter. The difference between total supply and total disappearance provides an indication of current inventory. At the national level, this balance sheet approach is used as the final check for the proper inventory level.

The accuracy of hog and pig estimates sometimes is questioned. Estimates based on a sample survey are subject to sampling variability. This variability, as measured by the relative standard error, is about two percent at the U.S. level for a hog inventory. This means chances are approximately 95 out of 100 that survey estimates will be within four percent of the complete coverage value if the same procedures were used to survey all producers.

The accuracy of the hog inventory and pig crop estimates also is measured by the level of slaughter in subsequent time periods. If the original estimate is outside reasonable limits, estimates are revised. This provides a reliable historical base to measure change in future estimating periods. The average change for the June and December estimates is about 1 to 1.2 percent at the U.S. level, well

within the two percent sampling error. The slaughter check is not as useful at the state level because of the movement of slaughter animals across state boundaries.

Wheat Estimates

The first production estimate of wheat in Kansas was made in 1866, one year after the Civil War ended. In that year, 68,000 acres were harvested yielding 19 bushels per acre for a total production of 1.3 million bushels (see Historic Farm Facts). Since then reports of crop production have been expanded to include more crops and more detail. County acreage, yield and production have a long-standing record in Kansas, dating back to 1875. In more recent years county estimates of acres, yield and production also have been prepared by cropping practices, i.e. summer fallow, continuous crop and irrigated.

Wheat reports are published in December when fall seeding generally is completed and then during the growing season from May through August. Two fall surveys provide seeding acreage data for the December wheat estimate. The late crop Acreage and Production Survey includes questions on wheat seedings for harvest in the coming year. The reported acreages are for individual farms. The December Enumerative Survey obtains fall-seeded acreage data from the area frame segments. The December Farm Report includes a question on the condition of wheat. The first information on probable yield per seeded acre is obtained from this indication.

The first objective yield survey measurements of the season are made in 300 fields across the state during the last week of April in preparation for the May 1 Crop Report. At this early stage of development only stalk counts and measurements can be made. This is utilized in a forecasting model to estimate expected yield. At the same time questionnaires are sent to the corps of monthly farm reporters asking the condition of the crop.

A month later, in late May, visits are made to the same sample fields to make counts and measurements. Additional determinations are made by clipping heads and sending them to the laboratory in Topeka where counts are made of the number of spikelets and sterile spikelets.

This presented special problems in 1981 because of the May 10 freeze. It was necessary to peel back the glume to see if healthy kernels remained. These counts of live spikelets are utilized in a forecasting formula to obtain a yield indication.

As in the previous month, mail questionnaires are sent to the 3,000 monthly farm reporters. Normally, about 1,500 to 1,700 are returned. For the June 1 survey, a report on condition is obtained as it was for May 1. Reporters are asked for their estimates of probable yields in their areas.

The early May freeze in 1981 resulted in a significant acreage being damaged to the extent that it was abandoned. A question was added to the June 1 Farm Report questionnaire to obtain the percent of acreage sown that would be harvested for grain. This provided a basis for making a downward adjustment in acreage for harvest. The reduction was verified by the indication obtained from the 3,300 June Acreage Survey reports which asked for acres planted and acres to be harvested for grain.

In late June the process is repeated for the July 1 report. By this time , however, wheat is mature enough to determine head weights from clippings sent to the lab from the sample fields. Heads are weighed and also threshed to obtain weight of the grain. The number of heads and average weight then go into the forecasting formula for yield. For this report, condition is no longer asked on the Farm Report—only locality probable yield is asked.

August 1 estimates are based on final preharvest clippings from the field sampling units, the last information from this source, along with gleanings after combining to determine harvest losses. After deducting the harvest loss a net yield is computed. Monthly farm reporters again submit average yields for each locality.

In late December the Small Grain Annual Summary is published. The acreage, yield and production of wheat in this report is based on a year-end survey which

asks for acreage planted, harvested for grain, acres cut for hay, acres abandoned and production. Yield is derived by dividing production by acres harvested for grain. These questions are asked by cropping practices (dryland or irrigated). This large survey of about 5,000 reports is utilized not only for the final acreage and yield but also for county estimates.

Each monthly estimate is for a specific point in time and assumes normal conditions thereafter. Many things can and do happen between seeding and the time the crop is in the bin. In 1981, of course, Kansas had a hard freeze after the survey period for the May 1 Crop Report. In 1980, the crop was largely mature before the summer drought and intense heat occurred and a good crop was realized. In 1979, despite a dry fall, precipitation generally was ample across the state during the spring and extremely good growing conditions generated large heads and excellent kernel fill. In 1974, the May 1 estimate was the highest in recent years. What happened to the crop? Spring rainfall was short, especially in late April and May, and in addition, wheat streak mosaic sharply reduced yields in central areas of the state. The following table shows the variability of monthly in-season estimates compared with final production. In most cases large deviations were the result of weather factors.

KANSAS WHEAT PRODUCTION

MONTHLY DEPARTURES FROM FINAL DECEMBER ESTIMATE

Year	Preceding Dec.	May	June	July	Aug.	Dec.
	—Thousand Bushels—					
1981 Production	420,000	412,800	329,400	305,000	305,000	305,000
Departure from Final	-115,000	-107,800	-24,400	0	0	0
1980 Production	332,800	371,200	394,400	414,800	414,800	420,000
Departure from Final	-87,200	-48,800	-25,600	-5,200	-5,200	
1979 Production	314,600	321,000	331,700	385,200	402,800	410,400
Departure from Final	-95,800	-89,400	-78,700	-25,200	-7,600	
1978 Production	345,000	325,500	325,500	319,300	309,000	300,000
Departure from Final	+45,000	+25,500	+25,500	+19,300	+9,000	
1977 Production	356,400	384,000	396,000	381,300	350,550	344,850
Departure from Final	+11,550	+39,150	+51,150	+36,450	+5,700	
1976 Production	327,500	302,400	279,500	321,900	327,450	339,000
Departure from Final	-11,500	-36,600	-59,500	-17,100	-11,550	
1975 Production	375,000	389,400	377,600	357,000	345,100	350,900
Departure from Final	+24,100	+38,500	+26,700	+6,100	-5,800	
1974 Production	360,000	406,800	384,200	330,400	313,600	319,000
Departure from Final	+41,000	+87,800	+65,200	+11,400	-5,400	
1973 Production	339,200	353,500	373,700	381,100	381,100	384,800
Departure from Final	-45,600	-31,300	-11,100	-3,700	-3,700	
1972 Production	313,100	288,000	306,000	304,590	309,205	314,900
Departure from Final	-1,800	-26,900	-8,900	-10,310	-5,695	
Positive						
Departure from Final	4	4	4	4	2	
Quantity	30,413	47,738	42,138	18,313	7,350	
Negative						
Departure from Final	6	6	6	5	7	
Quantity	59,483	56,800	34,700	12,302	6,421	
Unchanged from Final				1	1	

GUY E. GIBSON
CHIEF ENGINEER

WATER RESOURCES DIVISION

History of Division

The division of water resources was created in 1927 with the consolidation of the Kansas Water Commission and the division of irrigation. It was assigned the duties and responsibilities of those offices at that time. Since 1927 the division has been responsible for the administration of 22 laws and administration of certain programs, cooperative agreements and memorandums of understanding pertaining to irrigation, drainage, flood control, appropriation of water and related problems to the conservation and utilization of the water resources of Kansas. A list of the active laws and delegated responsibilities follows.

The obstruction of flow of surface water, K.S.A. 24-105, was passed in 1911 and has been amended from time to time. Adopted in 1917 was the construction of flood control works by cities, K.S.A. 12-636 to 638. Investigation of proposed irrigation plants, K.S.A. 74-509, was passed in 1919. Several laws were adopted in 1929, such as the construction, repair and maintenance of levees, K.S.A. 24-126; construction of dams, placing of obstructions in streams, and changing the course, current or cross section of streams, K.S.A. 82a-301 to 305a; and the establishing of bank lines as boundaries within which counties may clean and maintain stream channels, K.S.A. 82a-307a and 309.

The construction of dams built under a federal agricultural program, K.S.A. 82a-312 to 314, was adopted in 1939 and has been amended from time to time. Three more laws were passed in 1941—the organization and operation of irrigation districts, K.S.A. 42-701 to 730; the exemption of taxes on land upon which dams are built to create reservoirs for the storage of water, K.S.A. 82a-405 to 409 and K.S.A. 79-201g; and the organization of rural water supply districts, K.S.A. 82a-601 to 611.

Adopted in 1943 was the administration of the Kansas-Nebraska-Colorado Republican River Compact, K.S.A. 82a-518. The appropriation of water and establishment of water rights (Kansas Water Appropriation Act), K.S.A. 82a-701 to 730 and K.S.A. 42-313, was passed in 1945. Administration of the Kansas-Colorado Arkansas River Compact, K.S.A. 82a-520 was adopted in 1949. The organization and operation of watershed districts, K.S.A. 24-1201 to 1233, was adopted in 1953. Adopted in 1957 was the organization and operation of rural water districts, K.S.A. 82a-612 to 637. Then in 1963, the organization and operation of certain drainage districts, K.S.A. 24-656 to 668, was adopted.

Passed in 1966 was the administration of the Kansas-Oklahoma Arkansas River Compact, K.S.A. 82a-528. The placing of car bodies along or in a stream for purposes of bank stabilization and soil erosion control, K.S.A. 68-2203, was adopted in 1967. Zoning of floodplains by cities and counties, K.S.A. 12-734 and 735, was adopted in 1970. In 1971 the administration of the Kansas-Nebraska Big

Blue River Compact, K.S.A. 82a-529, was adopted. The organization and operation of groundwater management districts, K.S.A. 82a-1020 to 1040, was passed in 1972. Adopted in 1974 was the acquisition of a water reservation right for diversion and storage of water in conservation storage water supply of reservoirs (State Water Plan Storage Act), K.S.A. 82a-1301 to 1320. In 1976 legislation was passed allowing the withdrawal and transportation of groundwater for use in adjoining states, K.S.A. 82a-726.

The division of water resources is the coordination agency for the National Flood Insurance Program and is responsible for the inventory and inspection of dams under the National Dam Inspection Program. The division also represents the Board of Agriculture on the Mined Land Conservation and Reclamation Board and the State Conservation Commission. The division is involved in procedures governing the planning and construction of state-owned structures or the leasing of structures in the floodplain. It also is a member of the six state High Plains Study Council and an ex officio member to the Kansas Water Authority.

The division has entered into many cooperative agreements with other state agencies or federal agencies, such as a cooperative agreement with U.S. Geological Survey dealing with the conservation and water use program in the state, and an agreement with the U.S. Geological Survey dealing with groundwater investigations.

Other agreements include a memorandum of understanding with the State Conservation Commission regarding the construction of watersheds; a memorandum of understanding with the U.S. Bureau of Reclamation regarding the storage of water in their projects, design of the projects, and operation and maintenance of their dams in Kansas; and a memorandum of understanding with the Kansas Department of Transportation regarding their activities affecting the course, current and cross section of streams. The division has a memorandum of understanding with the Mined Land Conservation and Reclamation Board regarding stream channel alterations, restoration of those drainage patterns and the reclamation of land after it has been mined.

A memorandum of understanding with the U.S. Bureau of Reclamation regards releases of water from Glen Elder Reservoir for the City of Beloit and the passing of the natural flow of the surface water through Glen Elder for use downstream by those holding water rights for stockwater purposes and so on. The division also has entered into memorandums of understanding regarding the bypassing of natural flow of surface water through John Redmond Reservoir and Council Grove Lake.

Appropriation of Water for Beneficial Use

A great change has taken place both in the character of water use and in the amounts of water needed and used since the first territorial legislation in 1855 adopted the common law of England in the newly created territory of Kansas.

The earliest new use which did not conform to the common-law rule was the use of water for irrigation. As settlers moved westward, the practice of diverting the water from streams to irrigate the land began. The state legislature recognized this practice and gave it approval in 1866 by authorizing the formation of corporations for the construction and maintenance of irrigation canals.

Ten years later, in 1876, the legislature sought to protect the investments made and uses established against depletion of the water supply by subsequent projects—in other words, to establish the rule of priority of right—by an act which provided that, "It shall be unlawful for any corporation or person to locate or construct any irrigating canal along or upon any stream of water, to take and use the waters of any stream in such a manner as to interfere with or in any wise hinder, delay or injure, any milling or irrigating improvements already constructed or located along or upon any stream of water, or to diminish the supply of water flowing to or through any established irrigating canal."

The first Kansas legislation authorizing the appropriation of water was enacted in 1886. This law provided that the right to the use of running water flowing in a

river or stream could be acquired by appropriation for irrigation purposes; as between appropriators, the first one in time should be the first in right.

In 1917 the Kansas legislature established an administrative procedure whereby surface or underground waters of the state may be appropriated. On June 10, 1944, the State Supreme Court, in an action brought by the County Attorney of Harvey County, *State, ex rel., v. Board of Agriculture*, ruled that under the Water Commission Act of 1917 the chief engineer had no authority to establish administrative procedure for the appropriation of water.

In response to the recommendation of a committee appointed by the governor, the legislature in 1945 enacted an appropriation statute which replaced part of the previous legislation and added new provisions. This legislation received the approval of the Kansas Supreme Court. The enactment offered a substantial foundation for the application of prior appropriative principles to the use of water. The legislature, by way of amendments and enlargements, has made improvements in the 1945 act. In 1977 the Water Appropriation Act was amended, setting forth that, "it shall be unlawful for any person to appropriate or threaten to appropriate water from any source without first applying for and obtaining a permit to appropriate water in accordance with the provisions of chapter seven of article 82a of the Kansas Statutes Annotated and acts amendatory thereof or supplemental thereto, or for any person to violate any condition of a vested right, appropriation right or an approved application for a permit to appropriate water for beneficial use."

In 1977 the Water Appropriation Act was amended, making it possible to grant temporary permits to appropriate water for beneficial use.

Administration of the Water Appropriation Act is one of the greatest activities of the division. Irrigation today accounts for approximately 80 percent of the water used in Kansas; production of electrical energy accounts for 10 percent; municipal, industrial, recreational and water power account for approximately 8 percent; and stock watering and domestic (home and family) use account for approximately two percent.

The Water Appropriation Act (K.S.A. 82a-706) provides that "The chief engineer shall enforce and administer the laws of this state pertaining to the beneficial use of water and shall control, conserve, regulate, allot and aid in the distribution of the water resources of the state for the benefits and beneficial uses of all of its inhabitants in accordance with the rights of priority of appropriation."

Beneficial use, as defined in the Rules and Regulations of the Water Appropriation Act, Division of Water Resources, 5-5-5(e) states, "Beneficial uses of water are domestic, stock watering, municipal, irrigation, industrial, recreational and water power."

It is unlawful for any person to prevent by diversion or otherwise the use of water by a person having a prior right. Upon making a determination of an unlawful diversion, the division of water resources may direct that the headgates, valves, or other controlling works of any ditch, canal, conduit, pipe, well or structure be opened, closed, adjusted, or regulated as may be necessary to secure water to the person having the prior right to its use.

The division, in cooperation with the five groundwater management districts, has adopted aggressive policies and rules and regulations in order to provide for the orderly development and to obtain the highest public benefit in the use of Kansas' groundwater resources.

Landmark Case

On July 17, 1981, the Supreme Court of the State of Kansas handed down a landmark decision in Kansas water law—*F. Arthur Stone & Sons v. Gibson*, 230 Kan. 224, 630 P.2d 1164 (1981). The *Stone* case is the first serious challenge to the constitutionality of the Water Appropriation Act since *Williams v. City of Wichita* was decided by the Kansas Supreme Court in 1962. In December 1979, F. Arthur Stone & Sons applied to the chief engineer of the division of water resources for two permits to appropriate water for irrigation purposes in Finney County. Based

on recommendations of the Southwest Kansas Groundwater Management District No. 3 that the applications did not meet the aquifer depletion policy which had been adopted in its revised management plan, the chief engineer found that approval of these applications would not be in the public interest and denied the applications. The Stones were notified of this decision and also were advised that the Water Appropriation Act makes it unlawful to threaten to appropriate or to appropriate irrigation water from any source without first obtaining a permit from the chief engineer. Violation of that section incurs criminal penalties.

The chief engineer subsequently was notified by the manager of the Southwest Kansas Groundwater Management District No. 3 on May 19, 1980, that the two wells described above had been drilled and equipped with center pivots installed. On June 6, 1980, the chief engineer notified the Stones to cease and desist from appropriating water by means of those two irrigation wells. The Stones appealed the order to the District Court of Finney County on July 9, 1980. After briefs and a hearing in the matter, the Honorable Judge Vance upheld the cease and desist orders of the chief engineer.

The Stones appealed the decision to the Kansas Court of Appeals. The decision later was transferred to the Kansas Supreme Court prior to hearing in the Court of Appeals.

The primary issue before the Kansas Supreme Court was whether K.S.A. 82a-728, the provision added to the Water Appropriation Act effective January 1, 1978, was constitutional. The provision made it an unlawful act to appropriate or threaten to appropriate water for non-domestic purposes without first applying for and obtaining a permit to do so from the chief engineer of the division of water resources. The Stones did not challenge the constitutionality of the portion of the Water Appropriation Act which was upheld by the Kansas Supreme Court in the 1962 Williams case.

After hearing oral arguments made by Dr. John Howe for the appellants and Leland E. Rolfs for the Kansas State Board of Agriculture on June 11, 1981, the Court rendered its decision July 17.

The court held that "K.S.A. 82a-728 does not constitute an unconstitutional taking of private property for public use without providing for compensation or due process of law. Mandatory permit procedures for the appropriation of water and the imposition of criminal penalties for violation of those procedures are lawful extensions of the regulatory authority granted by the Water Appropriation Act, found constitutional in *Williams v. City of Wichita* . . . The requirements fall within the reasonable exercise of the state's police power to control water use in Kansas."

The impact of the Stone case was to remove uncertainty from the minds of water users across the state of Kansas as to whether the state had the power to impose a criminal penalty for violation of the Water Appropriation Act. The decision has facilitated enforcement and improved compliance with the Kansas Water Appropriation Act. Although many other questions concerning the Water Appropriation Act still remain to be answered, the Stone decision is an important milestone in the history of water law in the state of Kansas.

1981—The Year in Review

The year began with precipitation conditions drier than normal over the entire state. At the close of 1980, annual averages ranged from about one-tenth inch below normal in the west central area to nearly 14 inches below normal in the southeast climatological division. Dry conditions continued over most of the state through the first four months of 1981. During late spring and into late summer, precipitation was above normal over the state. Drier than normal conditions, however, returned to western Kansas during the months of September and October. November weather was much wetter than normal with all nine climatological divisions reporting above normal precipitation. At the close of 1981, accumulated precipitation for the state as a whole was about two inches above normal.

Table 1.—WATER STORAGE IN MAJOR RESERVOIRS

Reservoir	Irrigation or conservation storage capacity (acre-feet)	Water in storage (acre-feet) December 31, 1980	June 30, 1981	December 31, 1981
Norton	35,940	3,310	3,630	3,080
Lovewell	41,690	31,870	42,890	36,630
Milford	415,350	373,270	448,690	400,880
Cedar Bluff	185,090	23,900	23,100	21,623
Kanopolis	55,240	54,710	74,660	57,240
Wilson	247,840	233,250	238,480	228,240
Webster	77,370	9,470	13,750	11,701
Kirwin	99,440	8,430	9,150	9,060
Waconda Lake	241,460	192,730	209,410	217,460
Tuttle Creek	425,310	352,490	441,980	439,880
Perry	243,220	220,520	267,540	220,870
Clinton	129,400	124,360	141,690	119,330
Melvern	154,370	140,690	189,190	136,040
Pomona	70,600	67,680	100,990	63,455
Cheney	167,100	147,910	165,930	123,730
Toronto	20,700	12,210	45,940	22,870
Fall River	23,900	14,020	38,560	24,060
Elk City	34,600	34,210	51,570	50,220
Council Grove	38,300	31,660	58,650	38,430
Marion	86,600	68,300	69,050	75,530
El Dorado	157,000	260	310	9,850
John Redmond	82,120	67,580	148,250	87,440
Big Hill	25,700	—	—	2,020

Sixteen of the 23 major Kansas reservoirs were below conservation pool level at the year's end. This compares with 22 below conservation pool level at the close of 1980. Storage in Norton, Webster, Kirwin and Cedar Bluff reservoirs remained very low. No irrigation water was released from them in 1981. Table One shows the status of the state's major reservoirs.

Groundwater Cooperative Program

The groundwater measurement program, in cooperation with the Kansas and U.S. Geological Surveys, was continued in 1981. The purpose of the program is to monitor changes in groundwater levels throughout the state. Approximately 460 wells were measured on a quarterly basis; about 1,500 wells had been measured by January 1981.

According to those measurements, water levels declined an average of about 1.5 feet in western and south central Kansas during 1980. This represents about a .5 foot increase over 1979 declines, when average water levels dropped about one foot. The increase in declines during 1980 probably is attributable to below normal precipitation and increased irrigation pumpage during the period.

Rural Water District Grant Program

The rural water district grant program was initiated July 1, 1974. Since that time a total of 27 rural water districts received state grant funds to assist in construction of the rural systems. Twenty-five of the districts have been completed; it is anticipated the remaining two districts will be completed during 1982. More than 7,000 families will receive benefits from the completed projects.

K.S.A. 82a-638, under which state grant funds were made available, expired January 1, 1981.

Interstate River Compacts

Kansas is a signatory state to four interstate river compacts: the Kansas-Oklahoma Arkansas River Compact, Republican River Compact, Arkansas River Compact and the Kansas-Nebraska Big Blue River Compact.

The administration of each compact met to complete annual business matters. New conservation storages and revised storage capacities of reservoirs in the Arkansas River Basin were prepared for the Kansas-Oklahoma Arkansas River

Compact. Virgin water supplies and consumptive use were computed for the 1980 water year for the Republican River Compact. A special study in cooperation with the U.S. Geological Survey to determine the effects of pumping of wells on flows of the Big and Little Blue Rivers was completed under the Kansas-Nebraska Big Blue River Compact. Additional studies under this program will continue in 1982. Special studies are continuing under the Kansas-Colorado Arkansas River Compact to evaluate needs for transit losses from John Martin Reservoir to the Kansas-Colorado state line, channel clearing and straightening and increasing channel capacity limit. Data obtained from these studies will provide more efficient distribution of water supplies. Studies also are being made of storage practices in Trinidad and Pueblo reservoirs in Colorado.

Annual reports were prepared and distributed for each of the compacts.

Water Appropriation

The number of applications filed for permit to appropriate water for beneficial use decreased to 1,062 compared to 1,124 in 1980. Table Two summarizes the number of applications received by source and use in 1981. Irrigation continues to be the dominant use; groundwater continues to be the dominant source. Figure One shows the number of applications filed by county.

During calendar year 1981, the certificate unit of the division of water resources was engaged in three major areas of endeavor.

Issuance of certificates of appropriation pursuant to approved applications for permits to appropriate water for beneficial use was at a near-record high. The certificate unit reviewed and prepared 730 certificates of appropriation for issuance by the chief engineer.

The increased activity of the Kansas oil and gas industry resulted in 975 applications for temporary permits to use water being approved in 1981. The vast majority of these temporary permits were issued to authorize the diversion of water in mixing drilling mud for use by rotary drilling rigs.

Substantial effort was made to evaluate and process verified claims to vested rights. The certificate unit reviewed 26 of these claims, which enabled the chief engineer to issue eight orders determining and establishing vested rights to continue the beneficial use of water. Eighteen orders denying verified claims were issued.

Several important changes in the rules and regulations of this division went into effect May 1. "Household purposes" (a term that is undefined in the Water Appropriation Act) was defined as, "The use of water by a person for cooking, cleaning, washing, bathing, human consumption, restroom facilities or other uses normally associated with the operation of a household." The definition "industrial use" was broadened to include "the use of water in connection with commercial services including, but not limited to water used in connection with

Table 2.—APPLICATIONS FOR PERMIT TO APPROPRIATE WATER

January 1, 1981 through December 31, 1981

Purpose of Use	Number of Applications Received			Number of Applications Approved*		
	Surface Water	Ground Water	Total	Surface Water	Ground Water	Total
Irrigation	74	642	716	95	668	763
Municipal	16	162	178	17	128	145
Industrial	11	70	81	11	71	82
Recreational	7	7	14	20	10	30
Domestic	5	0	5	2	2	4
Stockwater	1	14	15	1	36	37
Artificial Recharge	1	0	1	1	0	1
Total	115	895	1,010	147	915	1,062

* All applications approved in 1981 were not necessarily filed in 1981.

Figure 1.—WATER APPROPRIATION APPLICATIONS

Number of Applications Received According to Counties
January 1, 1981 through December 31, 1981
Source of Water Supply: G-Groundwater; S-Surface Water

WESTERN KANSAS TOTALS	CENTRAL KANSAS TOTALS	EASTERN KANSAS TOTALS
G-309	G-451	G-135
S- 1	S- 42	S- 72

steam electric power plants, secondary and tertiary oil recovery, air conditioning, heat pumps, restaurants, hotels and motels; provided, however, the use of one and one-half (1½) acre-feet of water, or less, per calendar year by an industrial user for household purposes shall be considered to be a domestic use." An attempt also was made to revise the hearing procedure used by this division, but this was rejected by the legislature.

Much staff time was spent studying the relationship between groundwater and surface water in the alluvial valleys of the North and South Fork Solomon Rivers above Kirwin and Webster reservoirs. The Kirwin and Webster Irrigation Districts have been concerned about the decline in base flow entering those reservoirs. As a result of these studies, special consideration is being given to the review of all applications for permit to appropriate water from the North Fork and South Fork of the Solomon River to minimize the effect of groundwater withdrawals on stream flow.

On March 16, the chief engineer issued an order requiring all surface water users on the North and South Fork Solomon River between Glen Elder reservoir and Kirwin and Webster reservoirs to install water meters to better facilitate administration of water rights along those streams. Surface water users diverting water from a reach of the Solomon River below Glen Elder Reservoir previously had been required to install water meters.

The staff also spent considerable time conducting studies and monitoring activities of the Jeffrey Energy Center, operated by the Kansas Power and Light Company, which diverts groundwater from the Kansas River alluvium by means of a well field near Belvue. As a result of decreasing water levels in the vicinity of

the well field, and concern about the impairment of senior water rights in the area, orders were issued not allowing Kansas Power and Light Company to pump groundwater from ten wells along the railroad right-of-way near Belvue from July 22 to September. Provisions were made to allow KP&L to divert surface water from the Kansas River under emergency conditions when it would not impair downstream users. A public hearing convened in Topeka June 3 regarding an application by KP&L for permit to appropriate surface water from the Kansas River as an alternative to the groundwater sources and to provide additional water for unit number III now under construction. Extensive studies of the effect of this application have been made by the division.

On August 6, an agreement was made between the division and the U.S. Corps of Engineers with respect to the bypassing of the natural flow of the Neosho River through John Redmond Dam and Reservoir. The essence of this agreement is that the average inflow for the preceding week will be bypassed if needed during the following week. This should better facilitate administration of water rights on the Neosho River.

During 1981, the division considerably increased its efforts in the enforcement of the Water Appropriation Act regarding unlawful diversions of water. Twenty-eight cease and desist orders were issued to persons unlawfully diverting water. In addition, the division has been working with the Kansas Corporation Commission in an effort to secure better compliance with the Water Appropriation Act among oil drilling companies which use water in oil field operations.

Work on the development of a system to computerize the records of the water rights section continues. Phase I of this system is scheduled for completion in 1982. Most of the basic data related to individual water rights has been put into the system except for historic water use. The 1981 annual water use reports were produced on the new computer system and mailed to water users in early 1982. The division hoped for complete and accurate reports of water use from water users so good water usage data would be available now that it is much more usable through the computer system.

Plans for 1982 are to complete phase I of the project, validate data that have been entered into the system, continue the entry of additional data and make plans for the enhancement of the system, especially as related to management capabilities.

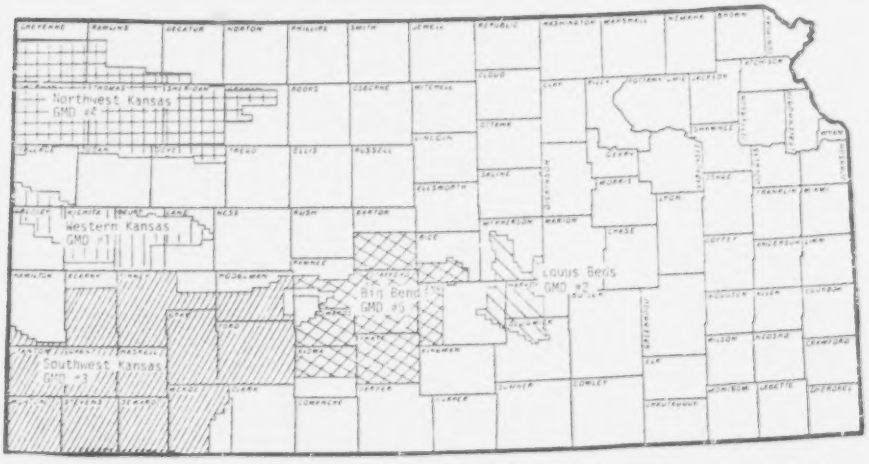
Water resources division employees work to computerize the records of the water rights section.

In response to a recommendation from the Big Bend Groundwater Management District No. 5, the chief engineer issued an order on July 8 declaring a portion of the Pawnee River Valley from near Larned to the Pawnee-Hodgeman county line in Pawnee County as an Intensive Groundwater Use Control Area. The chief engineer previously had declared a moratorium on the approval of new applications for permit to appropriate water in the area pending results of a study by the Kansas Geological Survey prior to holding a hearing on the matter Nov. 25, 1980. Applications in the area now are reviewed under special criteria established for that area allowing no more than 1,500 acre feet to be appropriated in a one-mile radius circle around a proposed well.

The Equus Beds Groundwater Management District No. 2 adopted a revised management program on March 10. The revised program made minor revisions to the district's safe yield policy as related to applications for a change in the point of diversion. In addition, the criteria to be used during the review of municipal applications were modified.

The Northwest Kansas Groundwater Management District No. 4 adopted a revised management program on February 17. The revised program made minor revisions to the district's planned depletion policy as related to applications for a change in the point of diversion and to the definition of a battery of wells to better conform to the definition used by the division of water resources. The district also now is requiring a flow meter on all new wells drilled within the district.

Figure 2. Organized Groundwater Management Districts in Kansas



Formal rules and regulations adopted by the chief engineer pursuant to a recommendation by the Southwest Kansas Groundwater Management District No. 3 became effective for that district May 1. The regulations implement the existing policies of the district related to well spacing, tailwater control and waste, allowable aquifer depletion, water use limitations, measuring devices, water use reports, abandonment and capping of wells, and procedures for non-compliance with the rules and regulations.

Revisions to the rules and regulations of the Big Bend Groundwater Management District No. 5 were adopted by the chief engineer pursuant to a recommendation by that district that also became effective May 1. These revisions relate to the district's safe yield policy and to the procedures for non-compliance with the rules and regulations.

As part of a cooperative agreement with the U.S. Geological Survey, funds are provided for collection of water use data. These funds primarily are used to conduct field inspections which provide data to determine the extent to which a water right is perfected. It constitutes an audit of the water rights.

The division furnishes the U.S. Geological Survey with copies of completed field inspection reports and water use reports.

Three contracts for the 1981 irrigation season were awarded to consulting engineers to conduct audits and complete field inspection reports in the northwest, north central and south central parts of the state. The work was performed in a satisfactory manner. This procedure will be continued in 1982.

State Water Plan Storage Act

The Kansas Water Resources Board (now the Kansas Water Office) filed amended notices in 1981 for the entire conservation storage capacity in Council Crove, Marion, Elk City, Perry, John Redmond, Milford, Big Hill, Clinton, Onaga and Hillsdale reservoirs. Notices for a water reservation right previously had been accepted by the chief engineer for the conservation water supply storage capacity in Elk City, John Redmond, Marion and Hillsdale reservoirs.

The Kansas Water Resources Board also submitted notices for water reservation rights for conservation storage in Tuttle Creek, Pomona, Wilson, Fall River and Toronto reservoirs for which no apparent commitment has been made to the federal government for storage in these reservoirs.

Action tentatively is being held in abeyance on the amended notices; new

notices to allow the policy of the recently created Kansas Water Authority to be ascertained before any consideration is given to making the significant policy changes requested by the Kansas Water Resources Board.

Dams, Levees and Other Projects

The 1981 Kansas Legislature amended K.S.A. 24-126, which is the state statute relating to the construction of levees or other such improvements near a stream which controls, regulates or changes the floodwaters of the stream. In general, the law requires all persons, corporations, drainage or levee districts, counties, cities, or towns and townships to have plans approved by the chief engineer of the division of water resources prior to the construction of any levees which would control floodwaters. The amended law requires all applicants who submit plans to the chief engineer for approval to include maps, profiles, cross sections, and information as to the effect on upstream and downstream areas resulting from the proposed levee. Before taking official action on any proposed levees which are designed to reduce flood risks to a chance of occurrence in any one year of one percent or less, the chief engineer is required to consider the effect on areas downstream or upstream as a result of the construction of the proposed levee, and the effect of the proposed levee and any other existing or proposed levees on downstream and upstream areas.

During the year permits were issued and plans approved for 34 farm ponds and one detention dam, 41 watershed district dams, two municipal water supply dams, one industrial water supply dam, one recreational dam, two changes in existing dams, 84 channel change projects and six jetty projects. Plans for 26 new levee projects were approved. A permit was issued and plans approved for four new sand plants. Extensions of time were granted to 18 sand companies, authorizing them to continue operations for an additional year.

Field inspections were made to determine the adequacy of sites, construction procedures and satisfactory completion of various projects; 41 such inspections were made of farm pond and detention dams, 109 of watershed district dams, six of municipal water supply dams, eight of industrial water supply dams, three of

During the year plans were approved and time extensions granted for Kansas sand plants such as the one pictured.

recreational dams, one of an overflow dam, two of dam modifications, five of channel change projects, three of new levee projects, three of new sand plant sites, and 19 of existing sand plant sites in response to requests for extensions of time on previously issued permits.

One hundred thirty-three certificates of satisfactory completion and reservoir capacity were issued to authorize reductions in assessed valuation of properties in connection with watershed district dams; 32 such certificates were issued in connection with individual dams.

Watershed district activity included the approval of the General Plans of Wolf River Watershed Joint District No. 66, Vermillion Creek Watershed District No. 70, and Tri-Creek Watershed Joint District No. 100. Modified General Plans were approved for Upper Black Vermillion Watershed Joint District No. 37, Mt. Hope Watershed Joint District No. 54, and Pawnee Watershed Joint District No. 81.

A petition for the dissolution of a tract of land from Middle Creek Joint Watershed District No. 50 was submitted to the chief engineer. Following consideration of the petition and information submitted at a hearing on the matter, the chief engineer issued an order which denied and dismissed the petition.

The 84 legally organized watershed districts in the state include 11,241,626 acres; 14 other districts covering 2,096,000 acres are in proposed status. The total of the organized and proposed districts is approximately one-fourth of the area of the entire state. General plans which show the works proposed to be undertaken have been approved for 73 of the organized districts. The works contemplated in these general plans include construction of 3,412 floodwater retarding dams. Fifteen districts have completed construction of all the works contemplated in their general plans, which include 284 floodwater retarding dams. In addition, three pilot watershed projects have completed 13 floodwater retarding dams. The residents of these areas have organized as watershed districts to maintain those structures. Forty-six other districts have undertaken some construction work; they have completed 509 floodwater retarding dams and have ten more under construction at the present time. An additional 2,148 floodwater retarding dams are proposed in those 46 districts.

National Dam Inspection Program

In 1978, updating of the inventory of dams in Kansas and inspection of high hazard dams was begun under two separate contracts with the U.S. Corps of Engineers. Updating of the inventory was completed during fiscal year 1980. It included 5,004 non-federal and 27 federal dams. Dams included in the inventory are those 25 feet and higher with a storage capacity of 15 acre-feet or more, and those with a capacity of 50 acre-feet or more with a height in excess of six feet.

Each dam in the inventory was classified on the basis of the potential for causing loss of life or property damage should the dam fail. Dams in the "high hazard" potential category are located where failure may cause loss of life and extensive property damage. The classification is based on downstream conditions rather than the structural soundness of the dam.

The inspection phase of the program consisted of a field inspection, evaluation of data and a final report for each dam. Of the 140 dams inspected under the program, all high hazard dams and a few significant hazard dams were included. Contractual obligations with the Corps of Engineers for this program ended September 30. Remedial measures have been or are being performed by several owners as a result of deficiencies reported from the inspections. Dam owners who have not informed the division of contemplated action are being notified of their responsibilities. Orders have been issued in cases where it appeared necessary for protection of life and property.

This program would be discontinued at end of fiscal year 1982 unless state funding was provided and additional personnel authorized. No federal funds will be available for this program for fiscal year 1983. If state funding and authorization of positions are made, keeping the inventory current and inspection of

existing dams on a regularly scheduled basis will be added to the duties of the existing section for dams, levees, and channel changes.

The division retained only one federally funded position until the end of fiscal year 1982 to enable follow-up action to continue.

Flood Plain Zoning and National Flood Insurance Program

Flood plain regulations, including flood plain zoning, are techniques intended to meet the state water plan objective of reducing flood damages. Such regulations also are necessary for a local community to be eligible in the National Flood Insurance Program. Since state statutory standards and federal standards on flood plain regulations essentially are the same, the flood insurance coordination becomes a major activity. Newly eligible communities include three counties (unincorporated area) and two cities, plus three suspended cities. A total of 298 communities are eligible in the program. This means 84 percent of the Kansas population has access to federal flood insurance. In 117 of the 298 communities, true risk flood insurance is available beyond the limited amounts of subsidized flood insurance. The engineering aspects of four sets of flood plain regulations were approved formally.

A recommendation has been made that the proposed Kansas-Missouri Compact on the Missouri River flood plain be dropped from consideration due to the lack of interest in Missouri.

The floods of June 15 and June 22 led to a Governor's Disaster Declaration both in Barton and Pawnee counties and a Presidential Flood Disaster for Barton County. The division provided half of the assistance at the insurance table for 958 flood victims who came to the disaster assistance center. The 658 flood insurance policies in force in Great Bend were far more than in any other Kansas community, but only 58 of those policies included coverage against contents damaged. Apparently, most policy-holders had purchased structural flood insurance because it was a requirement of the mortgage loan and failed to heed the flood hazard warning inherent to the purchase requirement. This situation is rapidly changing, as these Great Bend flood insurance data indicate:

	June 1, 1981	July 15, 1981	October 4, 1981
Policies in Force	649	817	1,084
Building coverage	*	21,457,600	28,595,500
Contents coverage	*	882,100	3,368,200
Total coverage	17,899,600	22,339,700	31,963,700

*Total available only.

Since Barton County (unincorporated area) did not become eligible until June 26, 1981, no federal flood insurance was available at the time of the flood. Summary records indicate the first six policies in the county were residential coverage in the maximum amount available for each structure and contents. Hopefully, other areas in Kansas will utilize this program of financial protection against flood hazard to buildings and contents prior to floods rather than afterward.

Although 17 claims remain unresolved and 252 insured persons had no valid claim filed, 389 flood insurance claims were paid totalling $2,100,938. Since there were 156 businesses and 1,384 residences or mobile homes damaged, including 87 receiving major damage, flood insurance did not totally cover the damages. This is, however, the first major Kansas flood event in which flood insurance indemnification has had a significant role. Victims will not have to repay either the $2.10 million from flood insurance or the $737,000 from a severely restricted grant program; however, loan repayment with interest is expected for 435 loans totalling $4.34 million through another federal program. Victims much prefer the former over the latter.

As a result of the Presidential Disaster Declaration, a flood damage mitigation

plan is required. Division personnel participated as part of the local-state-federal mitigation planning team. Flood plain regulations with insurance have appeared as the technique of flood damage management with the greatest immediate potential and impact. Flood plain regulations with insurance are maturing rapidly into a viable technique of managing flood damages.

Chief Engineer Guy E. Gibson receives enthusiastic congratulations from Governor John Carlin on his 40 years of state service.

FREEMAN E. BIERY
DIRECTOR

WEED AND PESTICIDE DIVISION

The Kansas Pesticide Law was enacted in 1978 establishing the statutory basis for state primacy over the Federal Insecticide, Fungicide, and Rodenticide Act. The pesticide section of the weed and pesticide division is responsible for administering that portion of the law relating to agricultural uses of pesticides.

Briefly, the regulatory aspects of the law refer to the use of pesticides by applicators and licensed businesses operating in agricultural plant and animal pest control, forest pest control, seed treatment, aquatic pest control, right-of-way, and demonstration and research pest control.

Areas of enforcement under the law relate to the certification of applicators, licensing of businesses and unlawful acts. Familiarity with past enforcement actions has shown that the generation of fines accomplishes little in preventing unlawful acts and that a positive, results-orientated program is more desirable to the citizens of Kansas.

Several different schools of thought exist among Kansans regarding the use of

pesticides. There are those persons most concerned with the continuing necessity to use pesticides for increased agricultural production; those that are most concerned about the effects of continued pesticide use on health, the environment and wildlife; and those citizens who generally address both concerns. The responsibilities of the pesticide staff are to promote the safe and proper use of pesticides within the mandate of the law, while allowing the full benefits of pesticides to be realized.

Compliance Through Service

It is believed that all aspects of the above mentioned concerns about pesticide use can be dealt with through a comprehensive program of services to the applicators and the general public. Day-to-day problems are dealt with on an individual basis, integrated with informative visits to applicators and pesticide businesses by staff to offer suggestions to remedy potential problems. Personal contacts are maintained with key persons involved in agriculture and pesticides, and informative presentations are made to interested groups. A comparable amount of the pesticide section's resources are devoted to the impartial investigation of pesticide-related complaints, accidents and various other situations.

Agreements have been established with border state officials and Kansas agencies concerned with agricultural pesticide matters. This type of interagency cooperation provides greater overall understanding and continuity of pesticide regulatory matters, more effective methods to deal with out-of-state applicators, and prevents unnecessary duplication of efforts in fulfilling individual agency requirements.

Something New

A non-commercial pesticide applicator survey program was initiated in the winter of 1981. Implementation of the survey has involved cooperative efforts with the Kansas State Board of Agriculture's statistical division and Kansas State University Extension Service. This survey is designed to provide the Kansas State Board of Agriculture with a better understanding of how various pesticide uses and application practices are affecting the well-being of Kansas farmers by determining where and what types of pesticide use problems exist. Initial mailing of the survey was limited (800 farmers) so procedures could be tested and problems handled properly. Plans are eventually to survey all farmers in Kansas, unless response indicates existing problems in this area do not warrant continuing the survey.

The primary objective of such screening is to determine if non-commercial applicators are having difficulty with their own applications to their own properties. If so, it is designed to offer assistance or help applicators find assistance concerning the difficulty.

A secondary objective is tied to the primary objective. Some farmers may or may not use pesticides themselves but still may be experiencing problems with non-commercial applications to other people's property, (such as their neighbors), and therefore may need assistance.

Both the primary and secondary objectives address problems associated with non-commercial applications only. It must be recognized, however, that all farmers (whether they apply pesticides themselves or not) may experience problems associated with commercial applications. A third objective of this survey, then, is to offer direction to the non-commercial applicator who may have problems involving a commercial applicator.

Data will be summarized in such a manner that statistically qualified statements about both the sample and the population can be made.

Beginning with the 1982 spray season, all pesticide application aircraft are required by regulation to display a decal as part of their licensing requirements. The purpose of the decal is to help identify and determine whether aerial applicator businesses and their aircraft are licensed. The decal is an effective deterent to operations by unlicensed applicators, whose operations in Kansas

result in the loss of protection by the law to both the public and properly licensed businesses. In order to obtain a license and decal an applicator must demonstrate financial responsibility through a bond or insurance.

An increasing concern is the safe storage of pesticide containers and the proper disposal of pesticide containers and waste. The division is responsible for storage and disposal of pesticides and their containers as long as control is maintained by the applicator. Guidelines have been developed by the staff and are available to the applicator on request and during regular staff visitations. These guidelines apply to all agricultural commercial applicators and dealers applying pesticides in Kansas.

Pesticide Advisory Board

A board of 17 members was created by the Kansas Pesticide Law to advise the Kansas Secretary of Agriculture on problems relating to the use, manufacture, transportation, application and restriction of pesticides in the state.

Members of the Pesticide Advisory Board are Joseph F. Harkins, Secretary of Health and Environment; Allyn Lockner, Director, Kansas Water Office, William P. Hanzlick, Director, Kansas Fish and Game Commission; Dr. William W. Hambleton, Director, State Geological Survey; Harland Priddle, Secretary, Kansas State Board of Agriculture; Kenneth F. Kern, Executive Secretary, State Conservation Commission; Gerald D. Gurss, D.V.M., Livestock Commissioner, Kansas Animal Health Department; Dr. Ronald L. McGregor, Director, State Biological Survey; Dr. Fred D. Sobering, Director of Extension, Kansas State University; Dr. James L. Ozbun, Agricultural Experiment Station, Kansas State University; Representative William M. Beezley, member appointed by Speaker of the House; Senator Jim Allen, member appointed by the President of the Senate; Larry D. Golladay, ground equipment operator, Beloit; Donald E. Holmes, aerial equipment operator, Clay Center; Warren Lee Beavers, pesticide wholesaler, Hiawatha; Eric M. Haberer, agricultural user of pesticides, Russell; Harold Coleman, President, Kansas Termite and Pest Control Association, Kansas City.

Jon Flint is the pesticide use law administrator.

Training For County Noxious Weed Control

Ted Yost, the first director of the noxious weed division, began work July 1, 1937. During 1938, 56 of the 105 counties employed supervisors.

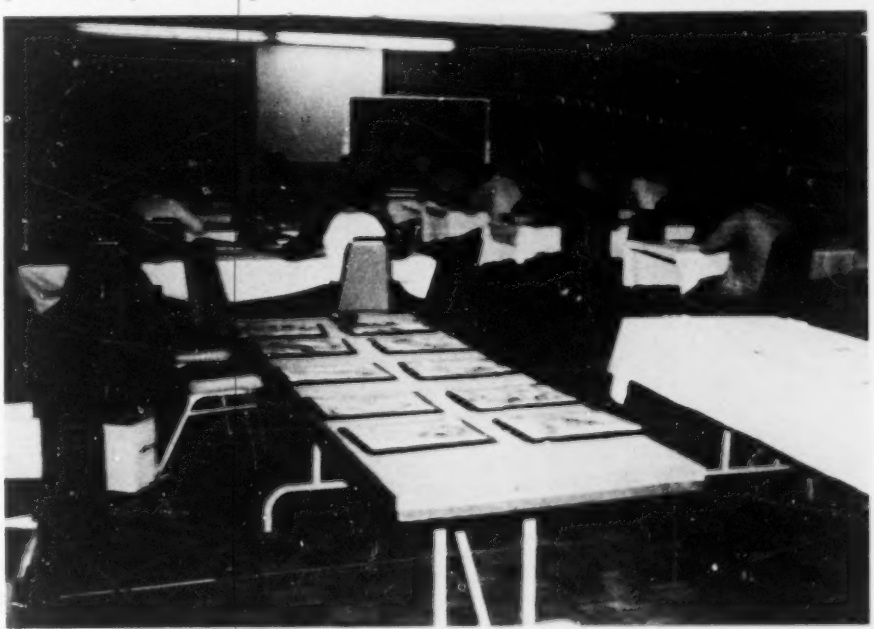
"The big problem was to hold schools for the new supervisors to acquaint them with the problems and methods of control," said Yost. Since then, the division has acquired responsibility for 11 noxious weeds, and training is still of utmost concern.

One of the first training programs for a new county weed supervisor involves qualifying for certification to apply restricted pesticides. Since picloram is one of the approved chemicals for treatment of some noxious weeds, all supervisors must be qualified to knowledgeably apply such a restricted chemical. This also serves as a good screening device to maintain a high caliber of county supervisors.

The division's Category 9a Handbook encompasses all areas of regulatory or noxious weed control and exceeds the requirements for the Kansas Pesticide Law and the Federal Insecticide, Fungicide and Rodenticide Act. Study questions are used to expose the applicants to all aspects of the program. The 100-question, closed-book examination is taken from the study questions.

Within the first year of employment, new county weed supervisors must attend the basic short course. This is an intensive training program to bring all supervisors to an acceptable level of knowledge which should enable each county to have an acceptable noxious weed control program. The short course program includes such areas as plant identification, noxious weed laws, equipment, chemicals, records, reports, and preventive weed control. After the basic program, a more technical training program is provided.

The advanced workshop and advanced short course is offered on an annual alternate basis. One year, the short course program will be conducted by Extension, Resident Instruction and Experiment Station Personnel from Kansas State University. This course includes the latest technical weed control practices and information such as chemicals, equipment, methods, safety and preventive weed control. This program also qualifies the county weed supervisors for recertification in category 9a. On the alternate year, the advanced workshop program is presented by resource persons other than Kansas State University personnel. In



New county weed supervisors are tested over one of the sections at the 1981 Basic Short Course at Manhattan.

Participants at the 1981 advanced workshop hear Dr. M. C. McCarty discuss "In-Depth Musk Thistle Control."

1981, Dr. C. M. McCarty and Dr. Alex Martin from the University of Nebraska and Dr. Ron McGregor and Ralph Brooks with the Biological Survey at Kansas University presented the in-depth workshop program with emphasis on musk thistle control.

Preventive control is the most economically feasible of any weed control program. The Noxious Weed Law deals specifically with infested livestock feed, harvesting and other machines and the disposal of noxious weed-infested materials. A special training program for county weed supervisors is conducted each year at several locations across the state. Commercial feed dealers and truckers recently have been invited to participate in this type of program. Increased emphasis is being placed on this method of preventing new infestations.

Five of the monthly district meetings are state-called to train the county weed supervisors, their helpers and secretaries in various timely topics designed to improve their programs.

The Annual Weed Conference is another required training meeting. The conference is primarily educational with some time to socialize with friends.

The *Update* publication was introduced in 1981 and has been a most effective means of informal training. Much of the *Update* relates to noxious weeds. However, other weed control information is included, because the most effective county weed control supervisor is one who is also knowledgeable in other related areas.

Each year the division presents an education booth at the Kansas State Fair. This booth provides an opportunity to educate thousands of people on a one-to-one basis in the proper methods for control and eradication of their noxious weeds. The popularity of this exhibit has prompted many Kansans to bring plants to be identified.

Slide presentations constantly are being updated for training of county weed supervisors and for the supervisors to use in county training meetings.

Pesticide Records Center

Four basic programs under the Kansas Pesticide Law generate the work activity in the pesticide records center: private applicator certification; commercial applicator certification; pesticide applicator business licenses; and government agency registrations. The center receives applications and fees, clerically issues documents, communicates with pesticide applicators, and maintains fiscal and other records.

The following indicates the numbers of certified and licensed pesticide applicators in Kansas, and presents some other information on the center's work programs.

Private Applicator Certification. The 1980-81 legislature amended the Kansas Pesticide Law, lengthening the effective period of the private applicator certificate. Under previous provisions of the law, the certificate was effective for an approximate three-year-period, expiring on December 31 of the second calendar year after year-of-issue. The amended law now provides that a private certificate will expire on the applicator's birthday in the fifth calendar year after the year of issue.

Private applicator certificates in effect December 31, 1981, were as follows:

Year Issued	Number Certificates	Expire on Applicator's Birthday
1981	14,475	1986
1980	398	1985
1979	766	1984
TOTAL ACTIVE CERTIFICATES	15,639	

Commercial Applicator Certification. The 1980-81 legislative amendment to the law did not apply to commercial applicator certificates—they remain effective for an approximate three-year-period, expiring on December 31 of the second calendar year after year-of-issue.

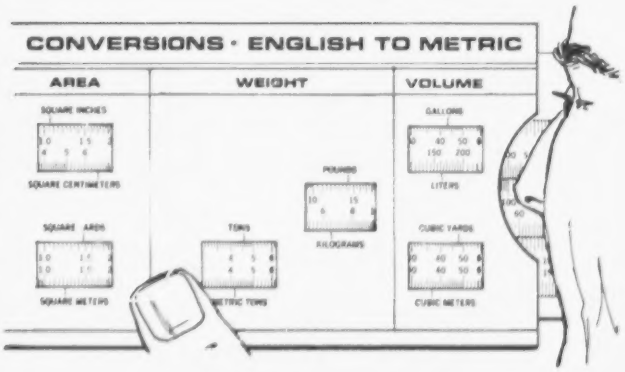
Year Issued	Number of Certificates	Scheduled to Expire
1981	2,079	Dec. 31, 1983
1980	216	Dec. 31, 1982
1979	346	Dec. 31, 1981

Pesticide Applicator Business Licenses expire December 31 of each year and are renewable annually. A total of 976 businesses were licensed for the 1981 calendar year, in licensing categories as follows:*

Category	Number of Licenses
1—Agricultural	442
2—Forestry	0
3—Ornamental & Turf	372
4—Seed Treatment	44
5—Aquatics	2
6—Right-of-way	45
7—Industrial, Institutional, Structural & Health-Related	392

*(NOTE: Some licenses were in more than one category.)

Government Agency Registrations expire December 31 of each year and are renewable annually. Counties and cities which perform pesticide application work comprise the majority of these registrants. For the 1981 calendar year, 168 agencies were registered.



JOHN O'NEILL
STATE SEALER

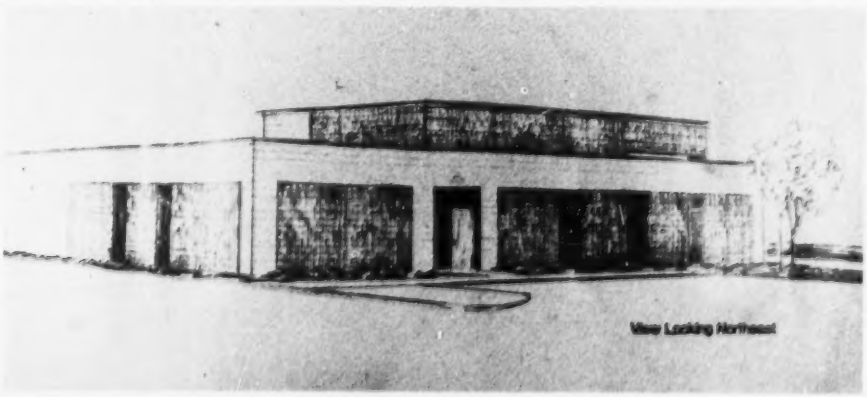
WEIGHTS AND MEASURES DIVISION

New Facility Under Construction

Site work began for a new metrology laboratory and division offices in January, 1982. Preparatory work began in December on the facility which will stand at 2016 West 37th Street in Topeka. Plans for the leased facility called for it to be occupied some time in late spring 1982. The concrete block and brick one-story building will be constructed by H. T. Paul and Company of Topeka, providing 4,000 square feet of office and laboratory space for the division of weights and measures.

The weights and measures laboratory, now located at 1020 North Kansas Avenue, will be closed. The official equipment given the state by the federal government in 1971 will be moved to the new location. These standards are used as accurate reference for testing all kinds of measurement tools for industry, government agencies, retailers and others in the state. Their functions are in mass, volume, length and frequency. The new laboratory ensures the division will have traceability to national and international weights and measures standards so that all Kansas measures are true and correct.

Keith Stelting, space management officer for the state of Kansas who found the new laboratory site, said the painstaking process used to select a site for the



The architect's rendering of the new weights and measures division office and laboratory building at 2016 W. 37th in Topeka.

Breaking ground on the new laboratory site Dec. 10, 1981 are (left) former State Sealer J. Fred True and State Sealer John O'Neill. The laboratory will be named "The J. Fred True Measurement Center," with a conference room to be named after the late W. W. "Bill" Duitsman, Kansas' eighth Secretary of Agriculture.

building may become a standard for other state buildings of this kind for Kansas and other states. The geological studies done have become a prototype for weights and measures laboratories in other states.

The U.S. Geological Survey in Lawrence did seismographic studies on potential sites to determine the most stable location to cut vibrations which can throw off measurements made by delicate lab instruments. The Topeka area, located in the Kansas River Valley, is particularly prone to geological movement. Vibrations in the area measured about 1/32 of those at the present laboratory. State officials are pleased with the chosen site because of its convenience to the Interstate highway, downtown Topeka and Board of Agriculture headquarters.

Plans for the building include larger-than-normal heating and cooling systems, delicate humidity controls, and special piering in the floors for extra support and to keep the atmosphere dust-free. The area's closeness to bedrock seems to cut down on vibrations.

What is a Weights and Measures Person?

The weights and measures official is the watchdog of commerce. He or she is concerned about the proper operating performance of gasoline pumps, weighing devices, meters and many areas of commerce where material is either weighed or measured.

The weights and measures official works to make certain that full measure is given to the purchaser, and that the seller also receives full value for services or goods provided. The weights and measures person is the arbiter of equity, the person whose job it is to make certain equity prevails in the true sense of the word; that the buyer and seller each get a fair deal with the measuring or weighing device.

The weights and measures official is an arbiter, a watchdog, and often an unsung hero. There are many reasons for this position. One reason is the consumer . . . the consumer who assumes and expects. The consumer assumes that when he or she buys a pound of hamburger it is indeed 16 ounces, and is willing to pay for it on that assumption.

Consumers expect a gallon of gas to flow through the meter and into their cars every time they pay for a gallon of gas. The yard of goods is expected to be a full

36 inches. And packages are assumed and expected to contain the measured quantity indicated on the outside label. Consumers hold to their assumptions and expectations, but very few of them know why they can.

The majority of weights and measures budgets are controlled by legislatures in one form or another—city, county or state. The members of those deliberative bodies often do not understand or appreciate most weights and measures activities. They may be skeptical of the value of money spent on weights and measures.

The skeptical legislator wonders whether money spent to control weights and measures in the jurisdiction is appropriately spent. As a consequence, they may be only too ready to cut budgets without understanding the true value of weights and measures activity. Lawmakers should remember that assurance of equity pertains directly to them and their households as consumers.

On another front, owners of weighing or measuring devices often are ambivalent in their feelings toward weights and measures people. If an inspector walks into a device owner's establishment and red tags or condemns the device, he or she is immediately upset, regardless of the fact that it was poor maintenance practices that caused the device to go out of tolerance. On the other hand, a new seal on an accurate device is expected so firms can stay in business. On one hand a seller can be upset about the weights and measures official; on the other hand, a seller can simply accept the seal as his or her due. The official goes away and is forgotten.

All these are logical reasons for the obscurity of weights and measures officials, mostly because of lack of information and lack of understanding on the part of the average citizen. The weights and measures official is the unsung hero of commerce, the unseen third person who guarantees equity in the marketplace.

Saudi Arabian Program Continues

It has been three years since Saudi Arabia chose the Kansas weights and measures division program as a pattern for its weights and measures program. Three American teams now are in the country working with the project. It may be 10 years before the project completely is turned over to the Saudi Arabian Ministry of Commerce for enforcement. Most weights and measures work has

The new Saudi Arabian weights and measures truck was in Kansas to be loaded with weights which were sealed and certified in metric units. It was shipped to Saudi Arabia where Kansas-trained inspectors will check scales along the Persian Gulf.

Viewing a field of wheat before harvest are the five young Saudi Arabians who trained in weights and measures control during the summer of 1981.

been modeled after Kansas, with other functions peculiar to that country's location. The second large capacity truck was delivered to Kansas for weight calibration and scale checks before leaving for port to be shipped to Saudi Arabia.

In the summer of 1981, a five-man-team of Saudi Arabians spent training time in Kansas and Missouri before returning to their homeland to utilize their weights and measures skills. Another team will be in Kansas in 1982 for on-site training.

The Kansas division of weights and measures now has entered the area of international diplomacy and is rated for its work in weights and measures. The Board of Agriculture takes pride in this recognition.

1981 Weights and Measures Activity

	Approved	*Rejected*	*Adjusted*	*Total*
Large Capacity Scales	918	297		1,215
Small Capacity Scales	8,273	398		8,671
Weights & Measures Tested	10,029	141		10,220
Grain Probes Inspected	24	4		28
LP Gas Meters Inspected	475	35	234	744

	Underweight	*Over*	*Correct*	*Total*
Random and Standard Packages Checked	25,677	1,037	120,942	156,656

	Inspected	*Investigated*
Anhydrous Ammonia Plants	261	
Complaints		12

Eighth Secretary of Agriculture— W. W. "Bill" Duitsman Dies at 63

Wilbert W. "Bill" Duitsman, Kansas' eighth Secretary of Agriculture in 111 years, is dead at age 63.

Duitsman died Saturday, January 9, 1982, at St. Mary Hospital, Manhattan. He had served as Secretary of Agriculture since August 1976. He was hospitalized in Topeka Dec. 10 and later transferred to Manhattan. He retired Dec. 31, 1981.

W. W. "Bill" Duitsman

Duitsman, to many, was Kansas agriculture personified.

Prior to being selected Secretary, he served some 24 years as superintendent of the Fort Hays Experiment Station, where he supervised many breakthroughs for agriculture. He became a fixture on two morning farm radio broadcasts. One was heard by thousands each Friday and the other was on the air five to six mornings a week for 17 years. As director, he headed up many field days and developed a rapport with farmers many think is unmatched among administrators.

Bill Phillips, who succeeded Duitsman as superintendent after heading the station's research staff under him for many years, said Duitsman had been a "very effective administrator."

"He created a climate in the Experiment Station so the research staff could do the things they should be doing." Phillips said the famous Kansas wheats, Eagle, Sage and Larned, were only a few examples of what the station turned out under Duitsman's supervision. Other accomplishments included strides in beef cattle nutrition, soil and range management practices, the development of a greenbug-resistant sorghum and crop-fallow rotations.

"Certainly agriculture will miss him," said Phillips, a longtime personal friend. "There's no question about that."

Governor John Carlin said "It is a deep loss. My involvement with Bill Duitsman goes back many years, before my involvement in state government, as a farmer. I have only the highest regard for what he did for years at the Hays research station . . . the wheat development alone, just that facet made him an important and impressive man in agriculture.

"Bill Duitsman deserves a lot of credit for what he has done for agriculture for years, and I know my family and the people of the state want to offer their condolences to his family."

John Meetz, executive vice president of the Kansas Livestock Association who worked with Duitsman often, said: "He was always a friend of the livestock industry through his many years at Fort Hays. And as secretary of agriculture, Bill had a grassroots appreciation for the difficulties farmers and ranchers face on a daily basis. He was respected for his innovative leadership in agricultural research and also for his sound, even-handed judgement as an administrator."

Duitsman was born May 12, 1918, on a farm north of Linn in Washington County. As a student at Linn High School, he was a 4-H member and received the state Future Farmers of America American Farmer Award.

He was graduated from Kansas State College of Agriculture in Manhattan in 1940 with a degree in agricultural economics, and was a member of the Alpha Gamma Rho fraternity.

Duitsman was a standout baseball player, spending two years in the Cleveland Indians organization before entering the Army for duty in Europe during World War II. He left the Army a captain. To a friend, Duitsman once confided he thought he could have made the major leagues had it not been for the war.

Agriculture called instead, and he became Brown County Extension director in 1946. There, he established the first active county soil testing laboratory in the state.

Duitsman became assistant superintendent at Fort Hays in 1950, and two years later succeeded L. C. Aicher as superintendent at the 3,700-acre station.

Sometimes during crises as secretary, Duitsman would recall with fondness his days at the experiment station, which he visited as often as possible.

Awards during his career were numerous. Among the notable: the first Kansas Farm Bureau "Distinguished Service to Agriculture" award; the KSU Agricultural Economics citation; the Kansas County Extension Agents Association award; the Kansas 4-H Alumni award; the state Soil Conservation Service award for soil and water conservation.

Duitsman was ever a friend to farm youth programs, particularly the 4-H and FFA organizations.

Last June (1981), Duitsman said he would step down as Secretary in early 1982 to become assistant to the dean of agriculture at KSU.

He was a member of St. Luke's Lutheran Church, Manhattan.

He and his wife, the former Thula Mae Muchow of Topeka, bought a home in the fall in Manhattan for the new job.

They were married in 1941. She survives. Also surviving are four daughters, Mrs. Jean Schmidt, Fort Riley; Mrs. Cheryl Engel, Burbank, Calif.; Mrs. Peggy Pera, Clay Center; and Mrs. Mary Gieseke, Lincoln, Neb.; his mother, Mrs. Bertha Duitsman, Linn; two brothers, Ervin and Kenneth Duitsman, both of Linn; and nine grandchildren.

The family had suggested memorial contributions either to the Kansas State University Foundation for agricultural scholarships or to St. Luke's Lutheran Church.

(This obituary appeared in the Topeka Sunday Capital-Journal, Jan. 10, 1982. It was written by Jim Suber, rural development writer, and reprinted with his permission.)

Bill Duitsman, Mrs. Duitsman and Harlan Oltjen with the oil painting presented to Duitsman at the 1981 Kansas Livestock Association meeting.

In Memoriam

W. L. "Bill" Weber, a long-time supporter of the Kansas livestock industry, died in 1981. Mr. Weber had been with Kansas City's Security National Bank, where he specialized in agricultural financing, since 1943.

Ralph J. Crawford, 72, died Oct. 14 at Clay Center. He started in the grain business at Green and was president of the Kansas City Board of Trade in 1966. He is survived by his wife, Gladys Gilbert Crawford; one sister; and one brother.

Dale G. Schowengerdt, 66, died March 7 in a traffic accident. He had operated a dairy farm near Hiawatha for many years. He is survived by his wife, Hazel; a daughter; two stepdaughters; a stepson; a sister; two brothers; four grandchildren; eight step-grandchildren; and one step-great grandchild.

Otto F. Stigge, 66, Washington, died April 3. A farmer, he was a member of the Kansas Farm Bureau, Kansas Livestock Association and was a Washington County trustee. He is survived by his wife, Leona Beikman Stigge; three sons; one daughter; three brothers; three sisters; and 10 grandchildren.

John H. Fankhauser, 78, died March 22. A farmer-stockman from Madison, he was a past director of the Kansas Livestock Association. He is survived by his wife, Phame Fellay Fankhauser; two daughters; one sister; six grandchildren; and two great-grandchildren.

Joseph F. Madl, 89, Baldwin, died April 19. He was a farmer and stockman, independent livestock hauler and founder of the Madl Implement Company. He is survived by five daughters; four sons; 18 grandchildren; and 33 great-grandchildren.

Max U. Engle, 67, died June 13. He lived in Oskaloosa most of his life. He had been a farmer, stockman, county engineer, soil conservation contractor and county commissioner. He is survived by his wife, Dorothy Jo Ottinger, and one son.

Irving J. Dannenberg, 92, died in Hiawatha. A lifelong Brown County resident, he had the first Grade A dairy farm in the area. He later was a seed salesman before retiring in 1949. He is survived by his wife, Olwen Walters Dannenberg; one daughter; one stepson; 13 grandchildren; and several great-grandchildren.

Arthur Carey, 60, died Oct. 18. He had owned and operated the Carey Hatchery-Poultry Farm for the last 30 years. He was a past president of the Kansas Poultry Association and member of the KSU Alumni Association. He is survived by his wife, Vivian Bennett Carey; one son; one daughter; his father; and four grandchildren.

John L. Pearl, 94, died Feb. 24 at St. Marys where he had retired after farming nearby for many years. For 34 years he was a director of the Farmer's Union Cooperative Business Association. He is survived by one son; one stepdaughter; one sister; six grandchildren; and six great-grandchildren.

George E. Geiger, 85, Salina, died Feb. 13. He was a retired banker and farmer who had been Saline County Farm Bureau president during the early 1930s. He became farm representative of the National Bank of America in 1939 and remained at the bank until retiring as senior vice president in 1967. He is survived by his wife, Lena Yost Geiger; one daughter; two sons; five sisters; and three grandchildren.

Frank J. Meyer, 85, died at Seneca Aug. 19. He had farmed near Kelly and Seneca until retiring in 1964. He had served on the Mitchell Township board, AAA board, FHA board and Nemaha County Cooperative Board. He is survived by his wife, Suzy Wichman Meyer; four daughters; two sons; three sisters; 35 grandchildren; and 22 great-grandchildren.

Wayne R. Aeschliman, 39, Bern, died Aug. 19. He was a farmer and stockman and former owner and operator of the Hiawatha Livestock Auction. He is survived by his wife, Jane Giesel Aeschliman; one daughter; two sons; his parents; one sister; and two brothers.

James L. Struble, Salina, died March 17. He was 70. He had bred and showed dairy cattle. Mr. Struble helped form the Salina Junior Dairy Show; served on the Saline County Fair Board for 25 years; and was a past president of the Saline County Farm Bureau. He had been an officer of the Kansas Inter-Breed Dairy Council and the Kansas Ayrshire Breeders.

Lawrence Beil, 83, died Feb. 1 in Salina. A lifelong Saline County farmer, he had been a director of the Salina Production Credit Association and the Bavaria Co-op. He was a member of the Farm Bureau and Farmers Union. He is survived by his wife, Nancy Rae; one son; three daughters; two sisters; eight grandchildren; eight great-grandchildren; and one great-great-grandchild.

Don M. Braum, 85, died Oct. 29 at Silver Spring, Md., where he had lived for 15 years since retirement. He was a 1924 graduate of the Kansas State Agricultural College, a county agent, and served in positions with soil conservation programs in the midwest. He later was employed by the USDA in Washington, D.C. and served the State Department in International Development in several foreign countries. He is survived by his wife, Roberta Myers Braum; four daughters; one son; one sister; two brothers; 16 grandchildren; and 17 great-grandchildren.

Roy B. White, a retired Topeka farmer, stockman and contractor, died Aug. 24. He was 80. Mr. White is survived by two sons; eight grandchildren; and 11 great-grandchildren.

Leonard R. Ottman, Onaga, died Sept. 1 at the age of 67. He attended the Kansas State Agricultural College and was graduated with a vocational agricultural degree in 1943. He taught vocational agriculture at Onaga Rural High School until he retired in 1979. He is survived by his wife, Merle Pickard Ottman; one daughter; one sister; one brother; and one granddaughter.

Robert C. "Charlie" Clampitt, Wichita, died July 7 at the age of 52. He was president of the Manning-Clampitt Meat Company, Wichita. He had attended Wichita State University and was active in Wichita civic activities. He is survived by his wife, Phyllis Manning Clampitt; two sons; one daughter; and two brothers.

Frederick C. Fenton, 89, former head of the department of agricultural engineering at Kansas State University, died April 9. He spent the years 1928 through

1961 as a KSU faculty member, except for two years spent in foreign service at New Delhi, India. He is survived by his wife, Doris; one son; two daughters; and six grandchildren.

Cliff E. Aubel, 90, emeritus professor of animal science at Kansas State University, died March 28 at Manhattan. He was a national authority on swine nutrition who had been a KSU faculty member more than 40 years. He is survived by his wife, Dora Otto Aubel; one daughter; one son; five grandchildren; and four great-grandchildren.

Harold M. Bennett, 82, Eskridge, died July 18. Mr. Bennett had been a farmer and John Deere Co. representative in Norton, Lawrence, Ottawa and Topeka. He served eight years as probate judge of Wabaunsee County. He is survived by his wife, Beth Reynolds Bennett; one son; one daughter; three sisters; seven grandchildren; and five great-grandchildren.

Edna Rose Lister, 98, died Oct. 26 in Ottawa. She had taught speech therapy and was named a Master Farm Homemaker in 1932. She helped organize 4-H clubs and was active in other Franklin County youth programs. She was preceded in death by her husband, Robert Lister. Survivors include two sons, two daughters, 15 grandchildren and 18 great-grandchildren.

Harry Lewis, 79, died Nov. 21. A former Topekan, he had been employed in the Board of Agriculture's marketing division. He was past president and secretary of the Kansas Poultry Institute. He is survived by one daughter, one son, one sister, 10 grandchildren, and four great-grandchildren.

Chester F. D. Steeples, 78, Plainville, died May 23. He was a retired educator, farmer and stockman. He had farmed near Zurich and was one of the first supporters of Rooks County Extension and soil conservation services. In 1952, he and his two sons formed a partnership, Triple S Farms. Among his survivors is a son, Duane, a member of the Kansas Board of Agriculture.

Joe O'Bryan Sr., 74, died Oct. 24. He was a well-known Hereford rancher and former breeder of registered Polled Herefords at O'Bryan Ranch, Hiattville. He was active in many agricultural groups and was a member of the Board of Governors of the American Royal. He is survived by his wife, Rosemary; five sons; four daughters; one brother; and two sisters.

W. J. "Jim" Pringle, 82, died April 10. The well-known Yates Center rancher was active in the Kansas Livestock Association. He was chairman of the Woodson Soil Conservation District for 10 years. His extensive ranch operation included grazing Texas and New Mexico cattle in the Flint Hills.

James Burke, a Eureka rancher and businessman, died April 12.

Russell Smith, a southwest Kansas farmer and rancher, died in 1981. He was a pioneer in his area and had held several public posts.

Tom Wright III, Lakin, died in 1981. He was a farmer and rancher, member of the American Quarterhorse Association and former rodeo participant.

John B. Wetta, 91, died March 18. He was a progressive farmer and Shorthorn breeder from Andale. He was a 40-year member of the Sedgwick County Fair Board.

Jan. 12-14, 1982

The Annual Meeting of the Kansas State Board of Agriculture

Howard Wilson

President Howard Wilson of Sharon Springs opened the 111th Annual Meeting at 3 p.m., Tues., Jan. 12. Board members from the six Kansas agricultural districts were introduced; as were staff members of the Board of Agriculture. Assistant Secretary Don Jacka spoke to delegates, outlining the purposes and history of the Kansas State Board of Agriculture and the Annual Meeting.

The Kansas State Board of Agriculture provides services, support and regulations for agriculture, administering approximately 60 laws which affect both Kansas agricultural producers and consumers.

The Board of Agriculture consists of 12 persons, two from each of six designated agricultural districts. They are elected at the Board of Agriculture's Annual Meeting each January in Topeka by delegates from each district. Each farm organization with 200 or more members in each county is entitled to send a delegate to the Annual Meeting, as are fair boards and commodity and breed organizations.

Board members serve three-year terms and can succeed themselves. They are legally charged with selecting the Secretary of Agriculture. The Kansas State Board of Agriculture, dating back to 1872, has nine divisions with the purpose of informing the people of Kansas and enforcing the state's agricultural laws.

Pictured (left to right) are Howard Wilson, president of the Board of Agriculture; Don Jacka, assistant secretary of agriculture; and Mrs. Thula Mae Duitsman. President Wilson gave her a plaque honoring the late W. W. "Bill" Duitsman's service as Secretary of Agriculture.

Thula Mae Duitsman accepts the award of merit for her husband, Secretary of Agriculture W. W. "Bill" Duitsman.

Banquet Well Attended

A capacity crowd of some 650 people attended the Tuesday evening banquet. Entertainment was provided by the Ottawa High School Cytones.

President Howard Wilson presented an award to Thula Mae Duitsman honoring former Secretary of Agriculture W. W. "Bill" Duitsman, dedicating the 111th Annual Meeting to his memory.

Carlin Honors Duitsman

In words of greeting to the agricultural delegates, Governor John Carlin announced that he would forgo this traditional opportunity to discuss his budget or the upcoming legislative session. Instead, he spent a few moments honoring Secretary Duitsman for his lifelong service and commitment to Kansas agriculture and the people of Kansas.

Gadberry Entertains, Teaches

"Don't Sell the Buggy" was keynote speaker Robert Gadberry's message to delegates and guests at the banquet. With liberal doses of humor, Gadberry none-the-less had an important message. "Don't give up the things tried and proved," he said. "You may disregard it, you may experiment or try other things, but we must hold fast to the great imperatives we know will work." With international tensions, economic problems, political problems and social problems, many Americans are confused. The situation in America calls for common sense. "Thank God we didn't sell the buggy," he said. "We still have the great imperatives that brought us where we are—faith in the Almighty, faith in the American system, faith in yourself, faith in your neighbor and faith in the work ethic." If we can restore faith in those things, he said, we will find a new sense of direction, the discipline and common sense to fulfill the historic destiny of this land.

Research Vital, Acker Says

Educational sessions began at 9 a.m. Wednesday with a speech on the "Continued Need for Agricultural Research," by President Duane Acker of Kansas State University. Agricultural research and education by America's land-grant universities have contributed to the United States' competitive advantage in agriculture, Acker said. "An increased volume of farm exports helps our balance of trade, strengthens the dollar and lets us buy consumer goods back from other countries. During fiscal year 1981, agricultural exports were $43.8 billion with farm imports valued at $17.2 billion. The net surplus of our agricultural trade balance was $26.6 billion."

Acker said Kansas' agricultural advantage is aided by the scientists and extension workers at KSU. "The economic impact of new crop varieties in Kansas is very important. As an example, Newton wheat was released by the Kansas State University Agricultural Experiment Station in 1977. The major reason for the release of Newton wheat was resistance to soilborne mosaic," Acker said. "Newton wheat returned $41 million more income for Kansas farmers in 1980. Based on our best estimates for 1981, we project $84 million more for Kansas farmers." Research is a continuing process, he said. Pest and disease agents adapt and change, making it necessary for plant breeders to continually alter crop varieties so they will be resistant to the modified pests and diseases. Acker said the consumers of American food and fiber are the chief beneficiaries of agricultural research and education. They should continue to be its primary financial supporters.

Dr. Acker

"Market to Market" Host Speaks

In the next presentation, Chet Randolph shared his wealth of experience as host of public television's "Market to Market" program and former market development executive with the American Soybean Association. The beginning of many of today's problems for rural America, he said, was the 1920 census report which said "the U.S. is no longer predominantly a rural country." That had a lasting effect on the way the country saw itself and the way the government saw farm and rural areas. As a small voting population, rural America lost attention, programs and funding. Washington, D.C., and the eastern power centers, he said, have an idea that rural America is an idyllic, peaceful place to live, where one can be poor but happy. The statistics, however, show a far different picture. Rural America has 40 percent of the country's poor and 44 percent of the substandard housing. Rural Americans have less access to physicians and health care and a 22 percent higher death rate. Rural America receives less federal funds for health care, transportation, housing aid and more. "I think that if we are going to see a change in the attitude in Washington and the East Coast," he said, "we need to do something about it—not just rely on the senators we send, but change our own attitudes." The voices which now speak for agriculture—more than 500 lobbyists in Washington—are a confusing babble. We need to consider who speaks for the farmer and speak in one, unified voice. "As people in agriculture, we need to sit down with the power centers and be involved in shaping major policy of the country." With our valuable knowledge of food production and food policy, he said, we are being invited to give our counsel to determine the direction America will take. We have the power—now we need to learn to be for something and listen to others. We can have power in this country, Randolph said.

Congressmen Explain Federal Programs

Ably moderated by Larry Steckline of the Mid-America Agricultural Network, Kansas Congressmen Dan Glickman and Pat Roberts joined in a discussion of federal farm legislation, in particular the 1981 Farm Bill, and a question and answer session.

Congressman Roberts said the Agriculture Committee, on which both he and Congressman Glickman serve, is possibly the best committee in the Congress in terms of getting bipartisan solutions to problems. Glickman and Roberts co-authored a bill which forms a producer board to give true cost of production data, from the producer's point of view, to the USDA. Agriculture is sick nationwide, he said. Although the longtime outlook in terms of demand is good, it will take a great deal of work to keep government from using agricultural products as a threat

or a weapon, thus driving prices down. The recently passed farm bill gives the U.S. Secretary of Agriculture a lot of discretionary power. How the legislation is administered is crucially important. Roberts is opposed to a foreign policy which uses food as a weapon. "You can't preach exports," he said, "and a market oriented food policy, then have no market and continued government intervention into the marketplace."

Congressman Glickman's message concerned the importance of unity among farm groups. When the farm bill was under discussion, the farm groups split, with some commodity groups supporting the bill, some against it. Members of Congress who represent rural areas are in the minority. With strict budget restraints, and bickering farm groups, it was difficult to get effective legislation passed. Glickman also is strongly against embargoes, or even the mention of embargoes, which cause havoc in the marketplace. One of the worst problems today, he said, is low farm prices combined with high interest rates. Unless interest rates drop, the agricultural situation won't improve. Congress has a challenge to help get prices up and keep interest down. It also is important, he said, for agriculture to agree, form a concensus, and gain political power.

Overseas Sales the Key

The afternoon was devoted to presentations by directors of the Board of Agriculture's nine divisions, beginning with "International Livestock Marketing," by Ken Boughton, director of the marketing division. Developing an effective program to sell Kansas livestock, or other agricultural commodities, to other countries doesn't happen overnight, Boughton said. Personal contacts are very important and they lead to good business practices before sales are made. An example of such a program is the Mexican Youth Visitation Program, co-sponsored by the marketing division and the Kansas Livestock Association. It is a two-month program which brings agricultural students from Mexico to live and work on a Kansas ranch. They learn about ranching, livestock and techniques in Kansas. Marketing officials are confident that they will go home, then return to buy Kansas livestock when they want to improve their herds. There is a lot of competition in the export business; the best way to compete is to make one-on-one contact with potential markets.

Robert Gadberry of Wichita was keynote speaker at the annual banquet.

Water is Vital, Gibson Says

With an explanation of the water resources division and how it works for Kansans was Guy Gibson, Chief Engineer. "Water is important in our daily lives, whether it is to raise food and fiber or merely drinking water to sustain our lives." Gibson discussed challenges regarding Kansas water matters today or in the near future. They included the Water Marketing Program, whereby the Kansas Water Office has entered into contracts with the federal government on some of the federal reservoirs for water to be stored so that they might sell that water to individuals who need it. He also mentioned the need for a compact controlling the use of the floodplain along the Missouri River. Another responsibility of the division is to protect the water supply when water is released from a federal reservoir for water quality purposes. He said the division is active in the administration of 22 laws, plus other programs and duties as assigned. "I feel," he said, "as water becomes more scarce, more precious, we are going to have more of these matters with which to contend. We must set guidelines as to how they are to be addressed."

Accurate Weights Assured

John O'Neill discussed "Weights and Measures and the Consumer." Director of the weights and measures division, O'Neill said the consumer has many problems in today's marketplace. He or she can be protected by education of the consumer, regulation of the seller and provision of adequate enforcement of weights and measures laws. Most people take for granted that weighing and measuring devices are accurate and that prepackaged commodities contain what their label indicates. That is not always true, but the work of the weights and measures inspector is to make sure those things are guaranteed correct. To protect Kansas consumers, the division enforces several laws: one dealing with large capacity scales, one with small scales and package surveillance, one with LP gas meters, one with gas pumps, one with anhydrous ammonia safety, and one with laboratory certification of mass, volume, length and frequency. A staff of inspectors travel across the state to enforce the first five laws; the sixth service is provided by a weights and measures laboratory where trained personnel perform tests and maintain the standards provided to the state by the federal government. To ensure the traceability of those standards to national and international standards, the state recently began construction of a modern, new weights and measures laboratory and headquarters in Topeka.

Guaranteed Pure Milk Products

"Safe Dairy Products" was the topic for Dairy Commissioner Brace Rowley. Rowley explained that the dairy program provides for safety and wholesomeness of dairy products. The perishable nature of milk makes it vital that special attention be paid to cleaning and maintenance of all equipment involved in dairy products. Kansas has four dairy laws. Under those are six sets of regulations that authorize the Board of Agriculture to adopt regulations and set up requirements to carry out the laws. The laws affect quality control, filled dairy products, the weight of a gallon of ice cream, a statewide milk program, and grade A and manufactured milk programs. In the dairy laboratory, 26,000 samples a year are tested, and 70,000 determinations of quality are made on products. The tests include bacterial quality, pesticide residues, and adulteration.

Advertising Can Deceive Buyers

"T-Bones 75¢/lb. (with meat—$8/lb.)" was the topic for Larry Woodson, director of the meat and poultry inspection division and Max Foster, assistant director. Woodson described the duties of the division and its history. It has enforced the Kansas Meat and Poultry Inspection Act since 1969 by providing various types of inspection services to plants which slaughter either livestock or poultry and those processing carcasses into meat or poultry products.

Foster described some recent cases of consumer fraud by deceptive advertising for sales of meat and poultry products. Most Kansas establishments which sell meat, he said, are honest. But the division investigates cases of fly-by-night operations which use deception and "bait and switch" advertising to cheat buyers of meat products in quantity. In one case investigated, a consumer paid $719 for meat which could have been purchased for $345 in a retail store. If people are uncertain about a particular firm offering meat sales at prices "too good to be true," they should contact their local Better Business Bureau or the meat and poultry inspection division of the Kansas State Board of Agriculture.

Safe Chemicals are Valuable

With some "Words About Weeds"—and modern pesticides—was Freeman Biery, director of the weed and pesticide division. Biery said there are two basic responsibilities assigned to the division by two different statutes. One is the noxious weed law which relates to county noxious weed departments in all 105 counties; the second is the Kansas Pesticide Law which makes it possible for Kansas farmers to use the pesticides needed for agricultural production in a safe manner so they can be retained for that use. With the use of slides, he discussed some of Kansas' noxious weeds. Musk thistle, for instance, came to Kansas in 1940 but was not named a noxious weed until 1963 when it already was well established in the state. It still remains a problem which is expensive to try to eradicate. He said recent research has found that spraying the rosette of the thistle in the fall seems to be the most effective way to kill the plant with chemicals. He also gave a brief update on the experimental biological control program for the musk thistle which uses an insect, the musk thistle weevil, to kill plants without chemicals. The newest noxious weed, kudzu, is an example of a preventative program the division uses to do away with weeds before they become well established. Also preventative in nature is the division's program to check and clean combines as they enter the state and to check bales of hay for large contents of noxious weed seeds.

Insect Outlook Optimistic

Dean Garwood, director of the entomology division, talked about "The Bugs and You in '82." Using slides, he showed several problem insects and diseases. The first, soilborne mosaic, is seen less often now because of the development of resistant varieties of wheat, especially Newton. Wheat streak mosaic, however, could be a problem in 1982. Early surveys have shown growers in the south central and central parts of Kansas could be affected and should destroy volunteer wheat which harbors the vector of the disease. An example of successful biological control is the case of black stem rust of wheat. Kansas entomologists have covered the entire northern half of Kansas, searching for and destroying the common barberry shrub which was a secondary host of the black stem rust fungus. Since there are no more barberry bushes to host the fungus, resistant wheat varieties will ensure that black stem rust will never be a major problem again. Garwood predicts there will be problems with the alfalfa weevil in the next year or two, but hope is raised by an ongoing program of biological control, as it is for the blue alfalfa aphid. The outlook for greenbugs on wheat in 1982 is good; the cold winter should have kept them from living through the winter and attacking wheat in the spring. In the case of chinch bugs, last summer's rains kept numbers down. Present surveys indicate the outlook will be good for low numbers of chinch bugs in 1982. There is a possibility of problems with grasshoppers next year. More surveys of all these insects will be conducted later in the year.

Labeling—the Key to Ag Products

"Know What You Buy" was the title for Bob Guntert, director of the control division. The activities of that division help you know what you buy, he said. They deal with seven laws concerning feeding stuffs, fertilizer, agricultural chemicals, livestock remedies, seeds, agricultural liming materials and soil

amendments. All those laws protect the purchaser by requiring honest labeling and compliance with product standards, thus creating a strong basis for fair and equitable competition in industry. The aims of all the laws are to protect consumers and industry and to create a climate of confidence. Legal enforcement of correct labeling and guarantees allows the consumer to know what he or she is purchasing; legal setting of minimum standards of performance and enforcement of a competitive market gives a comparative market advantage to the seller who gives better service; a climate of confidence is created when the law provides testing of products so each customer does not have to test each product which is purchased.

Jacka Explains Budget

The Thursday morning session opened at 9 a.m. with a discussion of "The Complexities of the Budget" by Assistant Secretary Don Jacka. Today, he said, government budgeting procedures are on one hand facing reality; on the other hand, facing the most difficult challenges in years. In the last two decades, people have come to accept inflation as a fact of life—although things may cost more tomorrow, they are assured there will be more money to pay for them. Suddenly, it seems, we have been forced to realize we are spending too much. The government must relearn how to budget the way each private citizen must—without spending more money than is earned. Budgeting is a prerecognition of needs (in the case of government, more than a year ahead of time), and, always, a battle of many opposing forces. The budget of a government agency must balance the call for reductions in the size and scope of government with the need to expend additional resources to meet critical public needs, Jacka said.

Crop Reports Invite Controversy

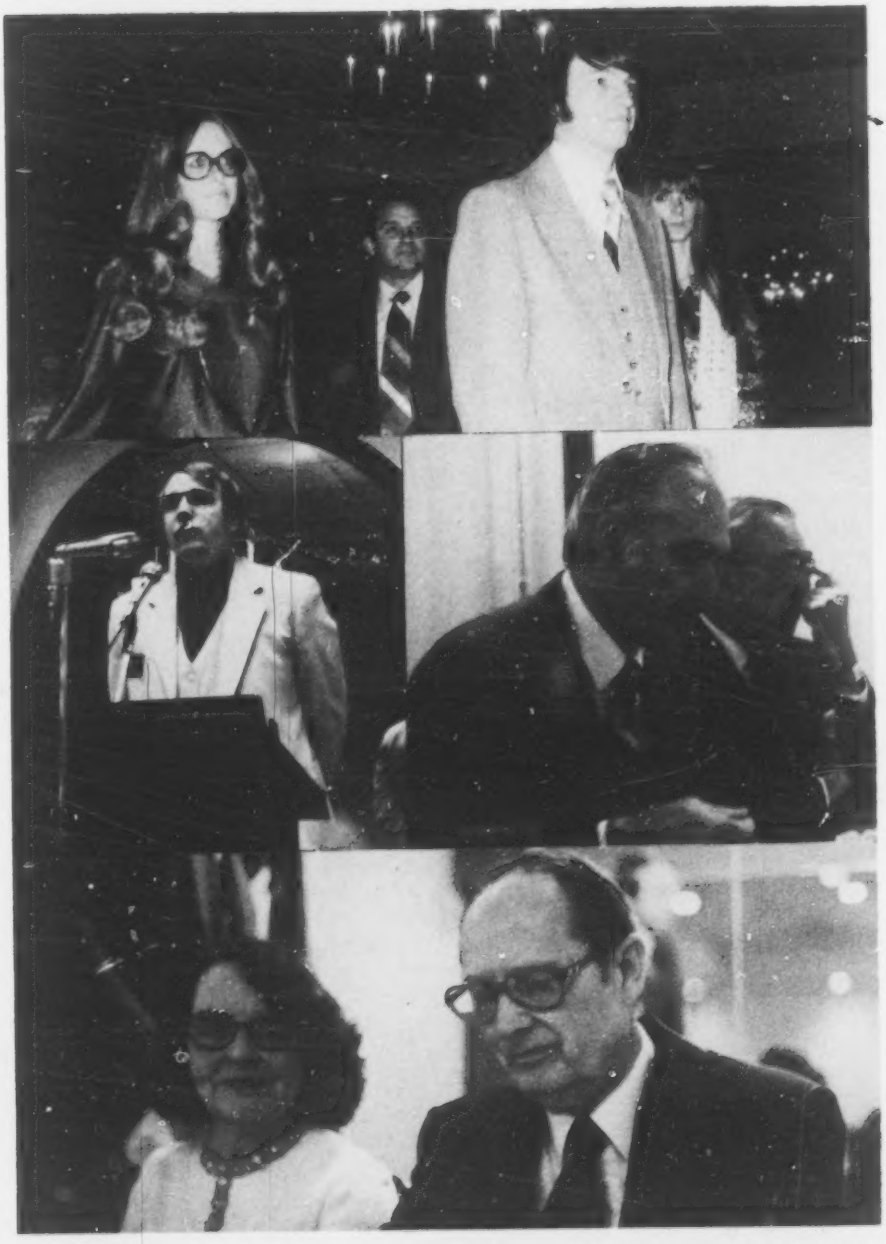
"The Big Picture—Gathering Farm Statistics" was the topic of M. E. Johnson, state statistician, and other staff members of the Kansas Crop and Livestock Reporting Service. The big picture, Johnson said, looks different to different people. "So it is with crop and livestock reports," he said. "Some heap praise on our work and continually ask for more data while others would do away with it." As an example, the Dec. 22 forecast of 1982 winter wheat production foresaw a record high production. Some believed the report just further depressed already low prices; others saw it as a stabilizing influence on a marketplace which already was guessing about the 1982 wheat crop. The report's effect should be to cause spring wheat growers to reduce their wheat acreage for 1982 and shift to other crops. "Crops and livestock reports are carefully constructed by trained agricultural statisticians who have extensive experience in agriculture and in statistical survey work," he said. "Your reports are treated with confidence and all data are summarized and analyzed under tight security conditions." Crop and livestock statistics, especially forecasts, can be used in your individual decision-making as you prepare production and marketing plans. They are used extensively by farm organizations and others as they define and describe the current agricultural situation and as they speak to Congress and legislators on behalf of their farm constituency.

New Member Elected

In closing business sessions, memorial and credentials committee reports were given. One hundred forty-two (142) delegates and 102 visitors were registered.

Elections of board members were conducted. Re-elected were Charles Hamon, district 1; Robert Teagarden, district 2; and Altis Ferree, district 4. Alvin Epler, Hallowell, was elected to serve district 3, replacing Richard Reinhardt, Erie, who decided not to seek re-election. The meeting adjourned at 12 p.m.

Scenes From a Meeting— New Board Member, Secretary Elected

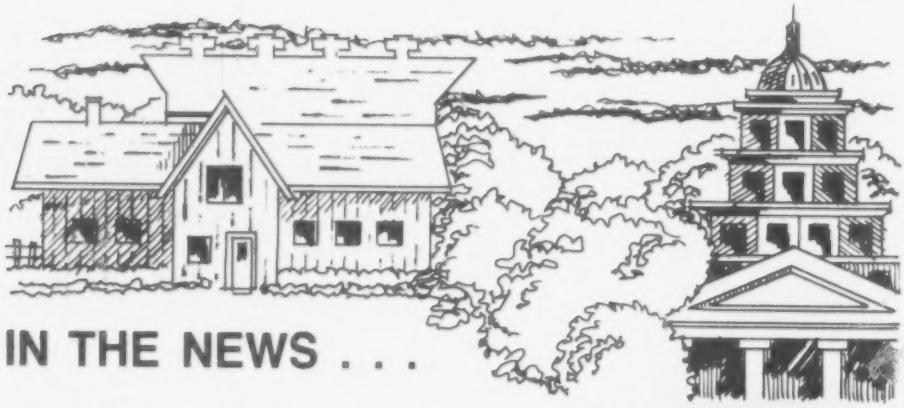


Pictured (clockwise from top) are members of the Dultsman family at the annual banquet; Sen. Ross Doyen (left) and Robert Gadberry; former Secretary and Mrs. Roy Freeland; and Assistant Secretary Don Jacka.

Pictured (clockwise from top) are delegates enjoying snacks provided by the Kansas Association of Meat Processors; Secretary Harland Priddie and Board Vice President F. E. Bliss; Governor John Carlin with Rep. Wendell Lady and Sen. and Mrs. Fred Kerr; and President Howard Wilson with U.S. Congressman Pat Roberts.

OFFICIAL DELEGATES TO ANNUAL MEETING

Tom Akin, Lawrence; Dennis Albright, Attica; Fred Auchard, Council Grove; Lonnie Bailey, Ft. Scott; Herb Beason, Elk City; Jack Beauchamp, Ottawa; E. J. Beck, Plevna; David Blankenship, Paola; Amos Blecha, Munden; F. E. Bliss, Longton; David Bodenhausen, Effingham; Tom Boehm, Olathe; Tom Boley, Topeka; Lauren Brunner, Ramona; Max Bryant, Elk City; Virginia Bundy, Paola; Mary Burch, Ottawa; Byron Carpenter, Stockton; S. T. Casey, Waverly; Jeff Casten, Quenemo; Wayne Childs, Elmdale; Roy Clubine, Independence; Floyd O. Coen, Elkhart; Carl Conger, Iola; Bill Coon, Norwich; Craig Cooper, Hoxie; David Corbin, Towanda; David Cosgrove, Council Grove; Worland Cox, Blue Mound; Jim Criger, Howard; David Darnauer, Goodland; Howard DeLange, Girard; Dwane DeWeese, Pratt; Winfield Denton, Minneola; Les Domann, Atchison; Duane Drees, Garden City; Evan Ellis, Lebo; Alvin Epler, Hallowell; Glenn Ewing, Olathe; Richard Featherston, Whiting; Altis Ferree, Yates Center; Ron Finlay, Kendall; Earl Foote, Bucyrus; James Gall, Reserve; Gertrude Gehrt, Alma; Jay Giessel, Larned; Robert Gottschalk, Hutchinson; Kendal Grecian, Bogue; Robert Grisier, Yates Center; Kirke Grutzmacher, Onaga; Stanley Gruver, Scott City; Harold Hainsworth, Wellington; H. J. Haley, Derby; Willis Hall, Eureka; Alpha Hall, Eureka; Charles E. Hamon, Valley Falls; Donald Harvey, Collyer; Homer Hatch, Burlington; George Heersche, Mulvane; Nancy Hjetland, Topeka; John Holliday, Liberty; Steven Hoover, Abilene; Eugene Horton, Plevna; Richard Jahnke, Leonardville; Charles Johnson, Concordia; Joe Jury, Ingalls; Nancy Kantola, Topeka; Richard Kendall, Haviland; Ralph Kimzey, Elk City; Harvey Kistler, Colby; Randy Knoll, Norton; Herman Koch, Clyde; James Kreider, Bonner Springs; Bob Kurz, Kendall; Tom Lane, Osage City; Stanley Little, Delia; Jan Lyons, Manhattan; William Mai, Sharon Springs; Ray Marshall, Girard; Jack Martin, Hugoton; Marlin McFarland, Sterling; Tom McIntyre, Albert; Joe McQuillan, Clearwater; Edwin McWilliam, Pleasanton; Jim Meredith, Bendena; Darrol Miller, Coldwater; Ed Miller, Mullinville; Hubert Mueting, Axtell; Gaylord R. Munson, Junction City; Lawrence Murphy, Girard; Adolph Musil, Home; Franklin Myers, Americus; Eugene Nelson, Lindsborg; J. R. Nichols, Alton; Kent Nollette, Monument; John C. Oswald, Hutchinson; Dean Otto, Wakefield; Gary Parker, Moran; Gary Penn, Junction City; Jim Ploger, Topeka; Richard R. Reinhardt, Erie; Jack Rickford, Marienthal; Kenton Rife, Oswego; Dale Roberds, Pittsburg; J. Byron Roenbaugh, Lewis; John Roth, Green; Eldon Rottinghaus, Soldier; Dan Sack, Corning; Harvey Schmidt, Canton; Greg Schmitz, Marysville; Walter Schnelle, Washington; Frances Schnelle, Washington; David M. Schurle, Manhattan; Leon Sinn, Ft. Scott; Bruce Spare, St. John; Duane Steeples, Zurich; Bob Stockman, Maple Hill; Paul Stoll, Yates Center; Merlin Stout, Rolla; Ron Strauss, Junction City; Alan Sullivan, Hugoton; Harold Tanner, Westmoreland; Marlin Toll, Lindsborg; Ray Troth, Pleasanton; Laurence Urich, Carbondale; Carson Ward, Caldwell; Howard Ward, St. John; Charles Weickert, Marysville; John Mark West, Alamota; George Wetta, Andale; Jere White, Garnett; Clark Wiebe, Hillsboro; Rolland Wiens, Meade; Hugh Wilburn, Beloit; Leonard Wilson, Johnson; Howard C. Wilson, Sharon Springs; John Wise, Linwood; Bernard Woydziak, Hoisington; H. D. Wullschleger, Home; Doug Ziegler, Grainfield; Kerry Zillinger, Phillipsburg.



IN THE NEWS . . .

Wayne Walter

Wayne Walter, Sublette, was elected vice president of the National Pork Producers Council, the nation's largest commodity organization. Active in the Kansas Pork Producers Council, Walter has been a member of the national group's executive committee since 1980.

Larry Abeldt, Hope, was elected co-chairman of the U.S. Feed Grains Council Board of Directors. Abeldt is a former member and chairman of the Kansas Grain Sorghum Commission. He also is a vice president of the USFGC.

Named Swine Practitioner of the Year by the American Association of Swine Practitioners was veterinarian **Dr. Steve Henry** of Abilene.

New to breed organizations in Kansas is the Kansas Longhorn Association. **Jack Blair,** Satanta, was elected 1981 president. Other officers are **Randy Jones,** El Dorado, vice president; and **Richard Carlson,** St. Marys, secretary-treasurer. Five directors were elected.

J. Richard Pringle, Yates Center, was re-elected chairman of the National Cattlemens Association Cow-Calf/Stocker Council.

Kansans newly named to the American Hereford Association's Honor Gallery at AHA headquarters in Kansas City were **Harry Darby,** Kansas City, Kan., and **Paul Swaffar,** McLouth.

A Haven woman, **Lois Schlickau,** was elected 1981 president of the American Hereford Auxiliary.

J. Richard Pringle

Former Kansas Congressman **Keith Sebelius** was named as one of the 17 members of the National Advisory Committee on Meat and Poultry Inspection.

Jackie Baker, the daughter of Mr. and Mrs. Marion Durward Baker, Topeka, was named Miss Rodeo Kansas.

President Duane Acker of Kansas State University was elected to a three-year term on the Board of Directors of the Federal Reserve Bank of Kansas City. He will be one of six non-bankers on the nine-member board.

Secretary of Agriculture John Block has appointed **James E. Carpenter,** Phillipsburg; **David Stockebrand,** Yates Center; and **Julius J. Johns,** Johnson, to serve as the Kansas Agricultural Stabilization and Conservation Committee which administers federal farm programs in Kansas. Johns was named chairman of the committee.

A Lebo girl, **Francy George,** was named Kansas Hereford Queen for 1981-82. Serving as Hereford Princesses were **Lori Fox,** and **Jennifer Haggard,** Winfield.

Rodney Rorabaugh, Lebanon, Kan., was named president of the Kansas-Nebraska Angus Association. Kansans on the board of the group are **Rick Boller,** Mankato, and **Everett Benoit,** Esbon.

Harold Gallaher retired as head of KSU's department of forestry and State Forester. Gallaher had come to Kansas as the first extension forester in 1951.

Joni Snapp, Westmoreland, won second place in the National Junior Merit Award program from the American Polled Hereford Association.

Reynolds G. Shultz, who farms in Douglas and Jefferson counties, was named to serve as state director at large for the midwest for the Farmers Home Administration. The appointment was announced by Secretary of Agriculture John Block.

J. C. Andras, herdsman for TL Custom Fitting Service, Osage City, was elected 1981 Polled Hereford Herdsman of the Year.

Jack Vanier

John Teagarden, La Cygne, was elected to the board of directors of the American Simmental Association.

Named senior vice president of the American Hereford Association at its annual meeting in 1981 was **Jack Vanier,** Brookville. Vanier is owner-manager of the CK Ranch, a firm which has been in the Hereford business some 45 years.

Earl E. Baugher, assistant professor at KSU, received the National Association of Colleges and Teachers of Agriculture Teacher Fellow Award and the Outstanding Teacher Award for the Central Region.

Hallowell Man Joins Board of Ag

Alvin Epler was elected to the Board Jan. 14. He replaces Richard Reinhardt, Erie, as a board member from the third agricultural district of Kansas. Reinhardt decided not to seek re-election.

Epler, 57, is a life-long Kansas farmer who was born in Hallowell. He graduated from Cherokee County Rural High School in 1942.

His farming operation, in partnership with his two sons, includes diversified grain and soybean farming, and backgrounding and cattle feeding.

He is a member of the Farm Bureau and an 18-year 4-H Leader.

He and his wife, Wilma Rauch Epler, are the parents of two sons and one daughter.

Hereford Leaders Named

Dale Jamison, Quinter, received the 1981 Kansas Hereford Breeder of the Year Award. Named an honorary member of the Kansas Hereford Association was Wayne Billings of Jetmore, a long-time supporter of the association.

John Schlickau, Argonia, was elected 1982 president of the group. Other officers are Glenn Oleen, Falun, vice president; Harry Schlickau, Argonia, treasurer; and Mike Jamieson, secretary-manager.

The 1981 American Royal Kansas Farm Family of the Year, pictured above, are David Bozone; Brandon, 8; Shannon, 11; and Shirley Bozone.

Royal Family From Near Hugoton

Honored as the American Royal Kansas Farm Family for 1981 were David Bozone; his wife, Shirley; and their children, Shannon, 11; and Brandon, 8. The Bozones farm in Stevens County.

David and Shirley were married in 1969 after graduation from Kansas State University. After starting farming with David's father on rented land, they purchased their first land in 1970.

Today they specialize in purebred beef cattle and milo production on their 4,742-acre farm 13 miles northwest of Hugoton. They own 1,200 acres and rent the rest.

They began with a registered Polled Hereford cattle herd. They began inseminating their cows with semen from Simmental bulls, resulting in half-blood Simmental calves. They eventually decided to build toward a goal of a purebred polled Simmental herd. The Bozones sell about 30 purebred and percentage bulls and about 30 three-fourth blood registered bred cows a year at private treaty.

The cropping program includes about 2,000 acres of milo and 220 acres of wheat sold as cash crops. All wheat is irrigated. Last year the Bozones' wheat averaged 55 bushels an acre.

The Bozones formed a family farm corporation about a year ago with an eye toward tax savings and estate planning. All the machinery and about half the farm land are in their corporation, which rents the rest of the land owned by the Bozones.

Shirley Bozone is involved in many aspects of the operation, from driving a truck at harvest or working cattle to keeping financial records. Daughter Shannon, a sixth grader, and son Brandon, a second grader, are active in 4-H.

The Bozones are active in a variety of community and extension activities. David has been a 4-H livestock leader, president of the county fair board, president of the county Farm Bureau and associate director of the Garden City Production Credit Association.

Shirley was 4-H cooking leader and is president-elect of her extension homemakers unit. She is a member of the county extension council.

Earl Van Meter

Joe Smith

County Agents' Group Picks Kansans

Earl Van Meter, Lawrence, and Joe Smith, Independence, are the 1981 Kansas winners of the Distinguished Service Awards presented by the National Association of County Agricultural Agents.

Distinguished service is the highest award the national county agents' group presents to its members. Only agents with at least 10 years of experience are eligible for nomination.

Van Meter, Douglas County Extension Director, has 21 years of experience. He has been an ag agent in Rooks, Gove, Rush and Rice counties. He promoted and helped develop numerous agricultural and rural programs for Douglas County, and established the only ongoing Kansas extension landscape demonstration, consisting of 380 different plant species.

Smith, president of the Kansas Association of County Agricultural Agents, has been in county extension work for 14 years. He is both extension director and agricultural agent in Montgomery County.

Bill Conrad, Grainfield, received the group's Achievement Award for Kansas. That award goes to a nominee with less than 10 years of experience in county extension. Conrad has been extension director and county agent in Gove County for six years. Under his direction the county built its first county fair facility.

Kimzey Leads Angus Association

Elected president of the Kansas Angus Association was David Kimzey of Elk City. Jan Lyons, Manhattan, was elected vice president. Lori Fink, Manhattan, was hired as secretary, and Fred Holder Jr., Milton, was appointed to serve again as treasurer.

Joining the board of directors were Victor Lickteig, Lawrence; Tom Hill, Goodland; Tom Perrier, Eureka; and Arlos Rusk, Sun City.

Don Good, head of animal science at KSU, was made a lifetime honorary member of the association at the annual meeting in Hutchinson. The Frank Lyons family of Manhattan was named Family of the Year.

Commissioners Named, Officers Chosen

Dennis L. Shirley, Norcatur, was elected chairman of the Kansas Wheat Commission. Adrian Polansky, Belleville, is vice-chairman.

New to the commission were Vernon Schraeder, Jetmore and Donald Turnquist, Lindsborg. Other commissioners are Steve Frazier, Winfield; Robert Anderson, Kinsley; and Kent Lamb, Macksville.

Elected chairman of the Kansas Grain Sorghum Commission was Ralph Henning, Kingman. Leon Suderman, Hillsboro, is vice-chairman. Other sorghum commissioners are Tommy D. Cook, Levant; Lawrence A. Peter, Tribune; Clint Thomason, Elkhart; Dennis Hommon, Smith Center; Rudolph A. Vopata, Marysville; Steven P. Russell II, Paola; and Leonard L. Biggs, Madison.

W. Stanley Compton, Larned, is chairman, and Russ Sylvester, Ottawa, vice-chairman of the Kansas Soybean Commission. Other members are Charles E. Hamon, Valley Falls; Clair D. Niles, Lebo; Willard V. Judd, McCune; Byron Brooks, Manhattan; and Loyd Ratts, St. John.

Members of the Kansas Corn Commission are David W. Darnauer, Goodland; William V. Mai, Sharon Springs; Curtis A. Ramsay, vice-chairman, Johnson; Jim Sjogren, Concordia; Laurel A. Dirks, Pawnee Rock; E. Eugene Wolf, Burrton; Maurice E. "Jack" Gray, chairman, Highland; Jere L. White, Garnett; and Joseph L. Elnicki, Girard.

Graham Joins Wheat Commission

The Kansas Wheat Commission appointed Steven M. Graham as administrator of the commission. Graham had served as acting administrator for several months. He succeeded Myron Krenzin, former administrator who resigned to join the U.S. Wheat Associates, Inc.

At the time of his appointment, Graham was working on a master's degree in grain science from Kansas State University.

He is a native of Illinois who graduated from Western Illinois University. He served three years with the Peace Corps in Benin, Africa, where he helped establish a program of on-farm grain storage.

At the same time, commissioners appointed public affairs director David Frey to serve as assistant administrator of the commissions. It also was announced that commissioner Adrian J. Polansky, Republic County, was elected secretary of the Agriculture Council of America. He is the only Kansan on the council's executive committee.

Livestock Judgers Win in Denver

Kansas State University judgers won intercollegiate livestock and wool judging contests at the National Western Stock Show in January. They also tied for third in a carload contest and finished fourth in a meats judging contest during the show.

Kent Stewart, Washington, paced the junior livestock judgers to the title as KSU had all five team members among the top 15 individuals. Other team members were Joe Rickabaugh, Greeley; Earl Fink, Redfield; Jeff Bryant, Arkansas City; and Doug Smart, Washington.

As a team the K-Staters were first in breeding cattle and total beef cattle judging, second in sheep and market beef, third in swine and fourth in horses.

Coached by Bill Able, the team topped 24 other groups in the contest. The wool judging team, coached by Clifford Spaeth, topped eight other schools, winning the second leg on a traveling trophy.

Wool judgers, paced by Lyle Leppke, Peabody, included Michael Saggartz, Manhattan; Debra Donley, Coffeyville; and Steven Joonas and Mike Thorne, Lebo.

Kansas Grange Master Ed Moody is pictured with Roderick Turnbull (right) and his award for distinguished service to agriculture.

Kansas Grange Honors Turnbull

The Kansas State Grange in 1981 gave its annual distinguished service to agriculture award to Roderick Turnbull, director of public affairs for the Kansas City Board of Trade.

Turnbull's career in agricultural reporting has spanned 60 years. A native of Maple Hill, Turnbull became a reporter on the Kansas City Star. He served as editor of the weekly Star Farmer, a publication owned by the Kansas City Star, as well as being agricultural editor.

During that time he served two terms as president of the American Royal Livestock and Horse Show and one term as president of the American Agricultural Editors Association.

After compulsory retirement from the paper at the end of 1970, he immediately began a new career as director of public affairs at the Kansas City Board of Trade. In that position he has continued to write on agricultural subjects, primarily the grain business.

The 1981 Youth Prince and Princess were Princess Penny Anstaett, Carbondale Grange No. 754 and Prince Monte Steffey, Pleasant View Grange.

Reigning as 1981 Junior Grange Prince and Princess were Princess Keely Harra, and Prince Tony Donham, both of Morning Junior Grange.

Pictured are Kansas Grange Queen, Edna Wehrle, Carbondale Grange 754, and Kansas Grange King, Harold Munger, Manhattan, a member of Grove Harvest Grange 2004.

Dikeman Leads Meat Science Group

Michael E. Dikeman, KSU professor of animal sciences and industry, was named president-elect of the American Meat Science Association. He will automatically become president of the 800-member group on June 18, 1982.

A 1966 K-State graduate from Fort Scott, Dikeman earned his master's degree in animal husbandry from Michigan State University in 1968 and his Ph.D. in food science from KSU in 1970. He joined the faculty in 1970 and was promoted to full professor in 1981.

Dikeman coaches K-State's meats judging teams. He received the KSU Chapter of Gamma Sigma Delta's Outstanding Teaching Award of Merit in 1979. He is a past president of the KSU chapter of Gamma Sigma Delta and has been faculty adviser to Alpha Zeta agricultural honorary society and Block and Bridle, a club for students in animal science.

Earlier in 1981 Dikeman received the "Younger Animal Scientist Teaching Award" from the Midwestern Section of the American Society of Animal Science.

McKee and Baugher Honored

Two Kansas State University agricultural faculty were named teacher fellows of the National Association of Colleges and Teachers of Agriculture (NACTA). They were Miles McKee, professor of animal sciences and industry, and Earl Baugher, assistant professor of agricultural engineering.

Baugher also was named NACTA's outstanding teacher fellow from the central region. He has been a member of the KSU faculty since 1967. He holds B.S. and M.S. degrees from K-State and was named an outstanding faculty member in agriculture at KSU in 1981.

McKee holds B.S. and M.S. degrees from KSU and his Ph.D from the University of Kentucky. He has been a member of the faculty since 1959 and was the first recipient of KSU's "Distinguished Ag Professor" award in 1968.

American Agri-Women Laud Kelly

A Kansas farm woman, Mildred Kelly of Effingham was the only recipient of the 1981 Leaven Award from the American Agri-Women (AAW). The award was given in recognition of her total involvement and sincere efforts toward the advancement of agriculture.

The AAW created the Leaven Award as their only official award, given only to those of exceptional merit. Leaven was chosen as the name for the award because its letters stand for qualities considered ideal in AAW. They are loyalty to the mission of AAW; enthusiasm; anticipatory; valiant; effectiveness; and nurturing.

Kelly is a special agricultural representative on the Atchison Chamber of Commerce. She has held office in agricultural organizations from chapter to national levels and represented agriculture on the U.S. Advisory Committee on Energy. In 1973, she helped organize the United Farm Wives of America, Inc.

As she says, the United Farm Wives members are farm and ranch women concerned about agriculture. They are not an auxiliary of any group. They are united to tell agriculture's story to Congress and consumers. They are affiliated with the American Agri-Women, the Ag Council of America and the Kansas Committee of Farm Organizations.

Kelly has been chapter president; Kansas president, treasurer and director; AAW third vice president and a member of the organization's energy committee. She is president of the AAW Resource Center and co-chairman of the group's 1982 meeting which will be in Kansas.

Kelly is not only a tireless worker and organizer in agricultural organizations; she also is active in her church and community.

KSU President Duane Acker presents Distinguished Service Award in Agriculture to John Vogel, Lawrence farmer-businessman.

Vogel is Honored by KSU

A veteran of nine terms in the Kansas Legislature, John Vogel was the recipient of Kansas State University's Distinguished Service Award in Agriculture in 1981.

Vogel, a Lawrence farmer-businessman, entered the legislature in 1963. He has co-sponsored numerous important bills as chairman of the House Agriculture and Livestock Committee, a post he filled for 14 years.

Vogel helped write the state pesticide law and worked on legislation that established a method of sampling grain for quality and moisture content which was fairer to farmers.

Vogel also helped write legislation which updated the Extension Council Law, which permitted election procedures to serve all citizens of a county with equal representation, and supported legislation that provided additional state funds to supplement the salaries of county agents.

A native of Stuttgart, Kan., Vogel was graduated from the University of Kansas in 1939. As a member of the Lawrence Chamber of Commerce he provided the leadership needed to establish the 4-H Fairgrounds for Douglas County.

Committee Promotes Exports

A Kansas Livestock Export Action committee was formed in 1981 to promote exports to foreign countries. The committee was formed through the cooperation of producers and such groups as the Board of Agriculture, KLA, U. S. Meat Export Federation, the Foreign Agriculture Service of the USDA and many breed organizations.

Members of the group's executive committee are Representative R. E. Arbuthnot, Haddam, chairman; Bill Able and Ancel Armstrong, Manhattan; Rep. William Beezley, Girard; Bob Laflin, Olsburg; Claude Messner, Caney; John Oswald, Hutchinson; Gene Raymond, Garnett; and George Wingert, Ottawa.

Success Stories—
Master Farmers-Farm Homemakers

Bill and Joyce Pascal, Luray, are diversified farmers who grow wheat, milo and alfalfa, feed out about 150 steers a year and run a 100-head cow herd. A farrow-to-finish hog operation has been turned over to their son, Mark. They own 1,600 acres, including 160 acres in Wyoming, and rent 280.

Delman and Mazie Gooderl have a 42,000-hen laying flock on their farm just north of Hoyt. They also have 70 beef cows, winter and graze about 130 steers and raise 30 acres of wheat a year. They own 360 acres and rent 200. Their son, Leslie, and daughter, Nancy, also are involved in the farm.

Ewald and Eileen Meier, Washington County, have one of the top dairy operations in the state on their 313-acre farm with 214 acres in cultivation. Their son Duane has purchased their Grade A dairy herd from the Meiers. Intensive farming produces feed for their dairy, including alfalfa, milo, barley and hay.

Among the first farmers in Ford County to irrigate were Dean and Norma Jean Hamilton. They farm 1,050 acres south of Dodge City. They specialize in wheat, corn and milo production, having sold the last of their beef cattle in 1980. They irrigate about 530 of their 825 cultivated acres.

Better rather than bigger is the rule for the farming operation of Gene and Maurine Colle. They have a 100-cow registered Holstein herd on their Grade A dairy north of Nickerson in Rice County. They farm 1,141 acres, both rented and owned. They grow wheat, alfalfa, milo, barley, sudan and corn.

Bill and Jerry Beezley began dairying near Girard in 1945 with 40 cows. Today their herd has quadrupled in size. In partnership with two of their sons, the Beezleys are the third generation to farm the home place which has expanded to 1,100 owned acres and 400 rented. They have about 690 acres under cultivation.

Christy Strauss
Junction City
Food—Nutrition

David B. Anderson
Shawnee
Citizenship

Matt Wineinger
Marion
Beef

Marvin Fehlman
Wakefield
Agriculture

Stanley Bartley
Wamego
Veterinary Science

This Family is 4-H All the Way

In 1953 Frank Garten and Agnes Smith met at 4-H camp at Rock Springs. In 1981, Frank and Agnes Smith Garten and their family of eight were named the Kansas 4-H Family of the Year.

Frank was a charter member of the Dickinson County 4-H Club; Agnes a charter member in Saline County. Frank was a member of the Sand Springs Rustlers Club for 11 years. Agnes belonged to the Mt. Tabor club for nine years.

In 1973, Frank and Agnes were 4-H Club volunteer leaders and all eight of their children belonged to the Sand Springs Rustlers 4-H Club. During the next eight years, five family members graduated from Kansas State University, four went to foreign countries as part of the 4-H international programs, five served as officers in KSU Collegiate 4-H Club, three lived at KSU Clovia Cooperative 4-H House and Mr. and Mrs. Garten were named Kansas Master Farmer and Master Farm Homemaker for 1979.

Frank and Agnes Garten have served on the Dickinson County Extension Council Executive Board and Advisory Council. Frank attended the National 4-H Congress in 1979 as a volunteer leader and has been an active member in many church, school, farm and livestock organizations. Frank and his brother, Clarence, farm 1,800 acres and fatten about 1,000 head of cattle a year.

Agnes, besides a homemaker, has been secretary for both the St. Andrews School and Church for 10 years. She has been involved in church groups, agricultural groups, school affairs and Extension Homemakers Unit.

Projects Distinguish 4-H'ers

Five Kansas 4-H'ers won top national honors at the 1981 National 4-H Congress in Chicago. They are Marvin Fehlman, agricultural winner from Wakefield; Matt Wineinger, beef winner from Marion; David B. Anderson, Jr., citizenship winner from Shawnee; Christy Strauss, food-nutrition winner from Junction City; and Stanley Bartley, veterinary science winner from Wamego.

Marvin Fehlman received a trip to the congress and a $1,000 scholarship from the International Harvester Company as one of six national winners in agriculture. His work has centered on livestock and crops projects. Marvin, a sophomore at Kansas State University, is the son of Mr. and Mrs. Harold Fehlman, Wakefield.

The National 4-H Council recognized Matt Wineinger with a $1,000 scholarship and trip to Chicago for achievements in the 4-H beef project. In 1981 Matt had 36 head of beef cattle and two market steers. He also is an accomplished livestock judger. A sophomore at Marion High School, he is the son of Mr. and Mrs. Earl Wineinger.

David B. Anderson Jr., one of nine national citizenship award winners, received a trip and $1,000 scholarship from the Coca Cola Company. Among his projects were organizing a 4-H club at the Kansas School for the Deaf in Olathe, organizing project meetings in a low income housing area and working in yards for the elderly in 51 rental units. David's parents are Mr. and Mrs. David B. Anderson, Shawnee. He is a senior at Olathe High School.

General Foods Corporation provided the trip and scholarship to Christy Strauss, national foods-nutrition winner. Her 4-H project in food preparation has led her to an interest in food research. She has studied microwave cooking and food additives and given numerous radio and television food demonstrations. The daughter of Mr. and Mrs. William O. Strauss, Christy is a KSU freshman.

A state, sectional and national winner in the veterinary science project, Stanley Bartley won a trip to the National 4-H Congress, a savings bond and a $1,000 scholarship presented by the Upjohn Company. Stanley has worked in a veterinary clinic in Wamego for four years. He has gained practical knowledge and conducted research on rabbits. A freshman at Colby Community College, he is the son of Mr. and Mrs. Gary Bartley.

Frank and Agnes Garten, the 4-H Family of the Year.

Schwartz is Regional Star Farmer

Douglas Schwartz, Washington, was named Future Farmers of America Star Farmer for the Central Region. Schwartz was one of four in the nation to be named a Regional Star Farmer. The awards recognize FFA members who are becoming established in farming or ranching.

Young farmers are not considered for the regional Star Farmer awards until they have been out of high school for two years. Following high school graduation, Schwartz attended Kansas State University for a year before becoming a full-time farmer.

Schwartz purchased a 367-acre farm in 1978. He also rents 854 acres and helps his parents, Leo and Sharon Schwartz, farm 1,000 acres of crops. He has a fourth interest in the family's 140 sows and 1,302 pigs, in addition to his own 191 beef heifers, 32 Chesterwhite sows, 18 Spotted Poland China sows, five purebred boars, 310 purebred pigs and 400 commercial hogs.

With irrigation on his farm land, Schwartz has achieved yields of 195 bushels an acre for corn and 145.5 bushels an acre for milo. Dryland crops have yielded 133 bushels an acre for milo and 130 bushels an acre for corn.

He started his FFA occupational experience program in 1975 with three beef cattle, 54 hogs and five acres of milo. He is a past president of the Washington FFA Chapter. He also was district vice president, the 1979 state Crop Production Proficiency Award winner and was runner-up for the state recordkeeping award the same year.

Schwartz and his wife, Lynda, have one son, Brock Douglas.

Wineinger is State FFA President

Ron Wineinger of Marion was elected to lead the 7,000 Kansas Future Farmers of America as their 1981-82 state president.

Wineinger, at the time of his election, was serving as president of his FFA chapter, president of the South Central District organization and president of the senior class at Marion High School.

He has won state, regional and national extemporaneous public speaking and other speaking contests. He has been named high individual in Kansas FFA contests for entomology, horticulture, crops judging and dairy cattle judging. He was named a State Farmer in 1981.

Wineinger was named a Putnam Scholar at Kansas State University, where he plans to study to become a vocational agriculture teacher. He is the son of Mary Lee and Earl Wineinger.

Other state officers were Douglas W. Haddan, Stark, vice president; Wes Beal, Haven, secretary; Bruce Elliott Fouts, Maple Hill, treasurer; Shelly Hasvold, reporter; and Greg Diel, Kiowa, sentinal.

State Star Farmer Named

Darrin Jessee, Weir, was named 1981 Star Farmer of Kansas; Daryl Cress, Fredonia, was Star Agribusinessman of the Kansas Association of Future Farmers of America.

Jessee, son of Mr. and Mrs. Bill Jessee, has a diversified farming operation with crop production his main enterprise. He started his program in 1978, using his own ground and renting additional land.

To earn the Star Agribusinessman award, Daryl Cress, the son of Mr. and Mrs. Larry Cress of Fredonia, worked for Cress Implement Inc., and began his own custom combining business.

Cress has been an officer of his class and the Fredonia FFA chapter.

Everest Rancher is KLA President

Harlan Oltjen

Harlan Oltjen, Kansas Livestock Association president from Everest, is on the Board of Directors of the National Cattlemen's Association. He is a member of the Kansas Beef Council's Executive Committee and has served on the KLA Board of Directors. He has been active in community affairs in Brown County and is past president of the Robinson Farmers Union Co-op. His degree in feed technology came from KSU in 1962.

Don B. Smith, Tribune, is the new KLA president-elect. He is a partner in a family farming and cattle operation, Smith Cattle Company, operating in Kansas, Colorado, Texas and Montana. Smith is a past chairman of the KLA Cattle Feeders Council and the brand committee. He also is a member of the foreign trade committee of the National Cattleman's Association.

Maxine Porterfield, Garden City, and Marcella Holbrook, Washington, were elected president and president-elect of the Kansas Cowbelles. Immediate past president Geni Stanley and Charlyne Paton remain on the board of directors.

Gardiner, Dickinson Garner Honors

Two outstanding Kansas cattlemen were honored at the 1981 meeting of the Beef Improvement Federation. Henry Gardiner was named BIF Commercial Producer of the Year; Bob Dickinson was named BIF Seedstock Producer of the Year.

Gardiner is an Angus breeder from near Ashland. His 600-cow herd has long been recognized for superior genetics, largely from the use of performance records. Because of careful breeding management, Gardiner's herd has been the source of steer progeny resulting in the certification of 14 Certified Meat Sires through the Performance Registry International and 24 bulls tested by the American Angus Association Sire Evaluation Program.

Gardiner has served on the board of directors for the National Cattlemen's Association, the American Angus Association and Performance Registry International. He has served as chairman of the Kansas Livestock Association Beef Improvement Committee and president of the board of the Kansas Livestock and Meat Industry Council.

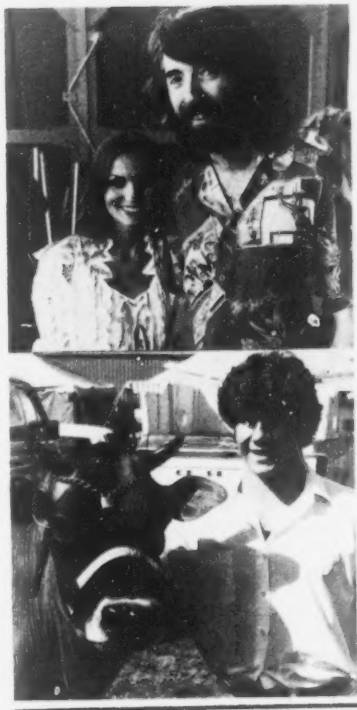
Dickinson's award is the first time a Simmental breeder has been named BIF Seedstock Producer of the Year. He began performance testing in 1960 with a weaning weight program. In the past years, he has recorded birth, weaning and yearling weights on all calves, plus maintaining carcass data on a portion of the cattle he produced.

Dickinson earned the role and title of "Mr. Performance" in the American Simmental Association. He also has served as chairman of the ASA Performance Committee.

He also was elected president of the American Simmental Association in January, 1981.

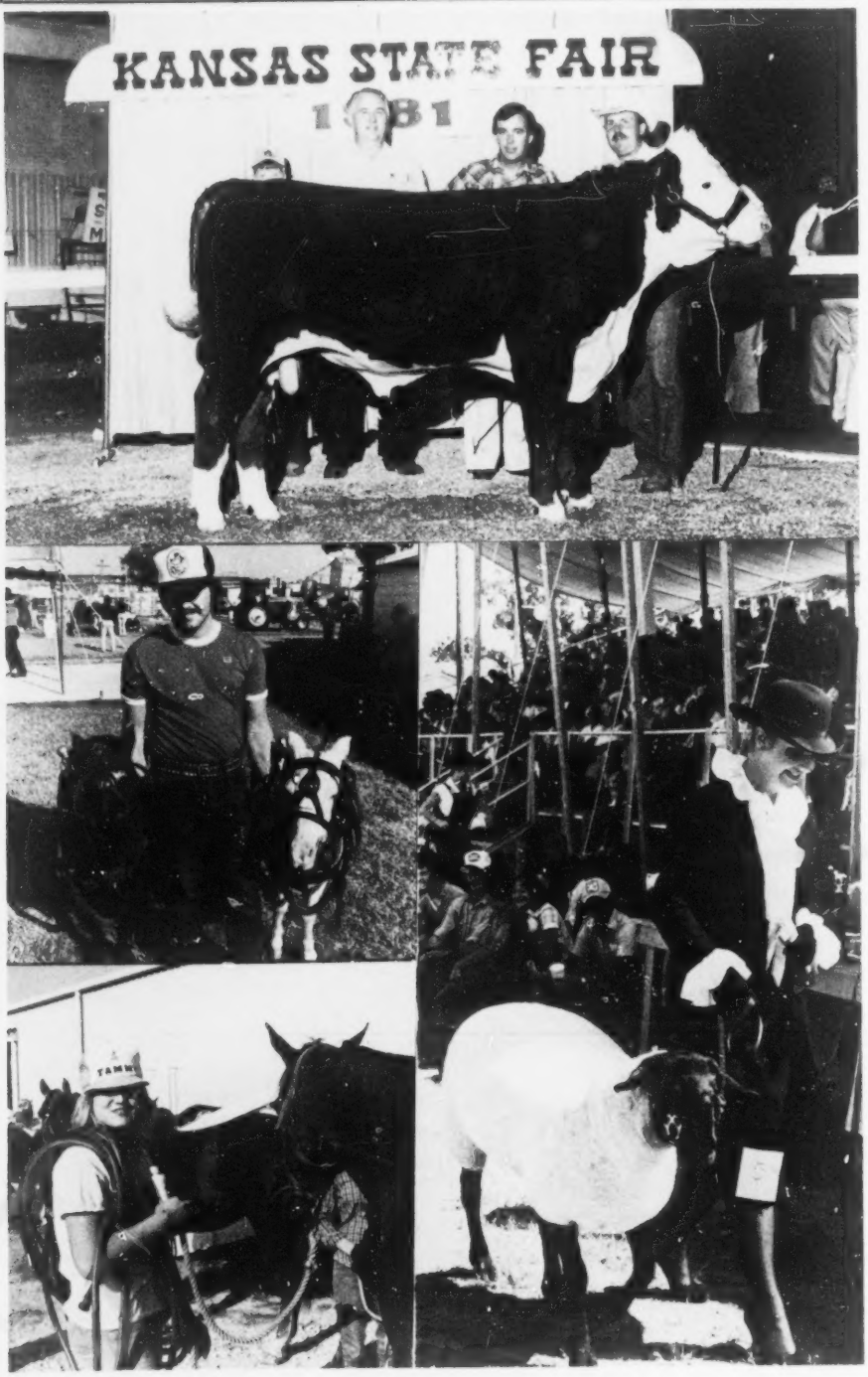
Dickinson owns and operates Dickinson Simmentals, a family-run corporation. He is a graduate of Kansas State University and served as president of the Kansas Simmental Association for two terms.

In 1975 he was honored by the Kansas Wildlife Federation as the "State Conservationist of the Year." He and his wife, Jan, are the parents of four children.

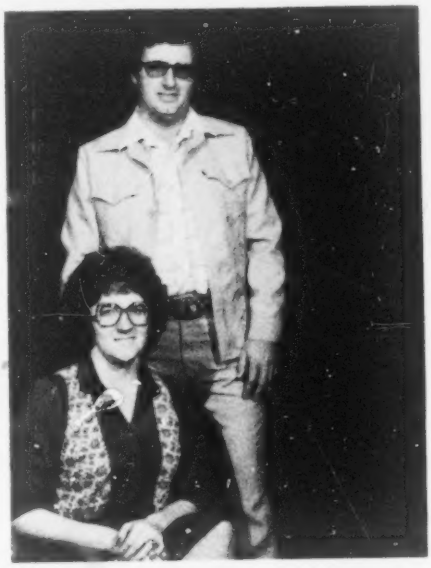


fair: A regional event, usually held annually, consisting of displays of farm and home products, and various competitions and entertainments: a state fair.

THE KANSAS STATE FAIR: Kids, cotton candy, cattle, singing stars, cowboy hats, grownups acting like kids, Shriners, parades, cookies, ribbons, winning, losing, ponies, sore feet, displays, fun . . .



Farm Bureau Honors Labette County Couple



The Kansas Farm Bureau named Kent and Janis Hansen, Labette County farmers from Dennis, winners of the 1981 Young Farmer and Rancher Award.

The Hansens raise wheat, soybeans and feed grain, and have 120 beef cows and 300 head of stocker cattle.

Their farming operation began seven years ago in partnership with Kent's father. They have expanded into their own operation since that time.

They also own Hansen Farm Supplies, a business which handles grain bins, grain handling equipment, silos, building supplies and livestock equipment.

"Dad" Weber Continues to Serve

A longtime Kansas agriculturist, Dr. Arthur D. "Dad" Weber, received the Kansas Farm Bureau's Distinguished Service to Agriculture Award for 1981.

"Dad" Weber's service to agriculture began in the 1920s when he was working his way through the Kansas State Agricultural College as assistant beef herdsman.

Weber gained statewide and national recognition for his beef cattle research and teaching and has been a highly effective spokesman for agriculture. Weber retired as KSU's dean of agriculture in 1963. Since that time he has continued to serve as vice president emeritus of KSU's international programs. He continues to promote better urban-rural relations. A native of Muscotah, Weber resides in Topeka.

Caught in a surprised but happy moment was Linda Sue Palkowitsh, selected 1981 Kansas Farm Bureau Queen. She is from rural Leoti in Wichita County. Runner-up was Martha York, Osage County.

Approved Holstein Judge—

Strickler is Distinguished Dairyman

Ivan Strickler, a 59-year-old pacesetter in the dairy industry, was named Kansas Distinguished Dairyman for 1981 at the annual meeting of the Dairy Herd Improvement Association.

The award is given to honor dairy farmers who have achieved excellence in their dairy enterprise, contributed leadership to the Kansas dairy industry and to local and state organizations.

As an approved judge of the Holstein breed, Strickler has judged national shows in Brazil, Argentina, Ecuador, Australia and Mexico. He, his wife, Madge, and son, Steven, are partners in a 171-milking-cow operation on a 1,300-acre farm in southeastern Kansas near Iola.

Strickler has been a leader for the dairy industry, in 4-H, extension and agriculture. He is immediate past president of the Holstein Association of America and currently is president of the corporate board of Mid-America Dairymen, one of the nation's large dairy marketing cooperatives.

He served eight years as a board member of the National Holstein Association and six years as chairman of the National Holstein Extension Committee. He also was a member of the executive board. He has held most of the positions in the Kansas Holstein Association and was on the marketing committee of the national Holstein groups for several years.

He served on the Allen County Fair Board many years and was 4-H dairy project leader for the Iola City Slickers. He is a past Farm Bureau Leader of the Year.

Strickler is a 1947 dairy science graduate from KSU and a 1971 winner of the Ford Foundation Dairy Farm Efficiency Award. He and his wife were honored as Master Farmer and Master Farm Homemaker by KSU in 1973. The World Dairy Expo named him Man of the Year in 1978.

The KPPC Story—
Producers, Promotion, Pork

Even more successful than they had imagined was the Kansas Pork Producers Council porkburger booth at the Kansas State Fair. The long lines of customers meant 14,000 one-third pound porkburgers were sold.

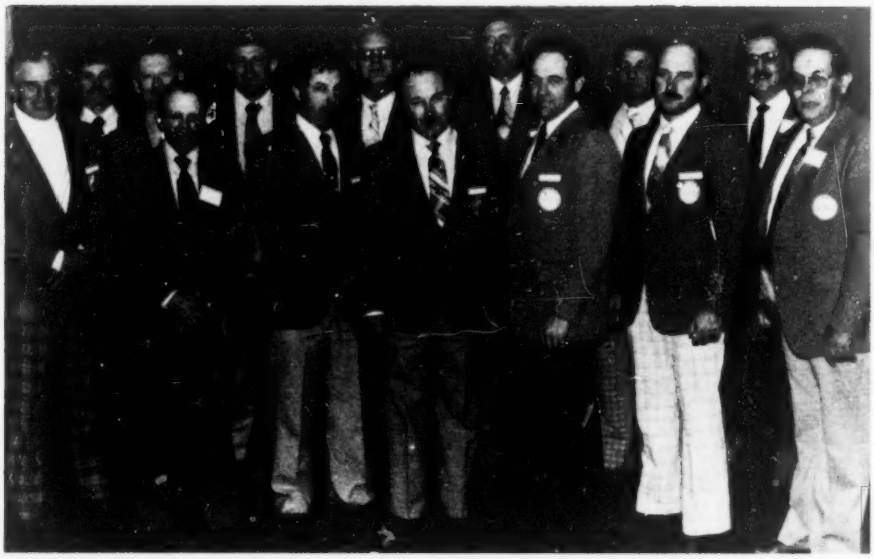
Pictured after the auction of the Grand Champion Ham (left to right) are Rex Childs, KFDI Radio; Larry Steckline, Mid-America Ag Network; Kansas Pork Queen Jane Ramsbottom; and Governor John Carlin.

Belleville Woman is Pork Queen

Nineteen-year-old Jane Ramsbottom of Belleville was crowned the 1981 Kansas Pork Queen at the Kansas Pork Producers Council annual 1981 meeting.

A graduate of Belleville High School, she was a freshman at Kansas State University when named queen. She plans a major in agricultural journalism and hopes to work on a major agricultural publication after graduation.

Ramsbottom is a member of many KSU agricultural clubs, including Block and Bridle, Cowboys for Christ and the agricultural yearbook staff. She also is a member of the New Student Council, KSU Forensic Team and is active in Campus Crusades.



Members of the KPPC executive board for 1981 (left to right) are Clarence Jenkins, Haviland; Doyle Talkington, secretary and executive vice president, Manhattan; Galen Harms, Whitewater; Don Sailors, Erie; Art Dohl, Sylvan Grove; Larry Sorell, Glasco; Fred Germann, president-elect, Dwight; Darrell Goss, Garden City; Ralph Rindt, Dwight; Leo Schwartz, Washington; Earl Schmucker, Sterling; Donovan Claasen, treasurer, Whitewater; Wayne Walter, KPPC director, Sublette; and Vyrl Fegel, president. Board member Richard Featherston of Whiting is not pictured.

Joanna Profitt, a Porkette, distributes pork samples in a promotional effort at a trade show. The 1981 Porkette officers are Kay Schmidt, president, Chapman; Joyce Blecha, vice president, Munden; Roberta Harms, treasurer, Whitewater; Madonna Sorell, secretary, Glasco; and Shirley Sailors, national director, Erie.

New officers of the Kansas Association of County Agricultural Agents are, from the left, Bob Frisbie, Pawnee County, president; Garry Keeler, Washington County, vice-president; and Ross Nelson, Ellis County, secretary-treasurer.

New FmHA Director Named

Larry E. Davis, a native Kansan who was reared in Goodland, was named State Director of the Farmers Home Administration in 1981. He is 38.

Davis earned a bachelor's degree from the Kansas State College of Pittsburg. From 1969 to 1974, he was a national bank examiner for the tenth national bank region, headquartered in Hays.

From 1974 until his appointment as FmHA director, Davis had been vice president of the First National Bank in Goodland. He worked closely with the local FmHA office on farm and business loan programs and was the bank's investment and compliance officer.

The Farmers Home Administration is a credit agency of the U.S. Department of Agriculture, providing necessary financing throughout the rural areas of the state for farm, housing and community development through loans and grants. As director for the state, Davis oversees the activities of employees in county, district and state offices.

Davis and his wife, Peggy, are the parents of two.

Wedel is Top-Notch Sheep Producer

The Kansas Sheep Association and the KSU Cooperative Extension Service named Ronald Wedel, 49-year-old Moundridge sheep producer, the 1981 Kansas Master Purebred Sheep Producer.

Wedel produces purebred Southdown and Hampshire sheep. Wedel's purebred sheep have won at least two championship places at each of the 40-some sheep shows in the United States. In 1981 Wedel's Southdowns competed at the Louisville Show, considered the show of all sheep shows in the U.S. They won the Grand Champion Ram crown and reserve ewe plus seven firsts, capturing all but five of the first place show ratings for Southdown sheep.

Wedel's real enthusiasm about the sheep business began in the summer of 1946 when he was 13 years old. With help from Oscar Norby, then-McPherson County 4-H agent, Wedel's lamb was the champion of the county fair. The sheep then stood second at the Kansas State Fair.

His Southdown flock was founded on domestic bloodlines in 1958, then bred to a number of Punchbowl rams. Wedel purchased the entire imported Punchbowl flock in 1972. He imported some New Zealand stud rams.

The flock has an exceptional show record—more than 300 state fair and national show champions in the 1970s, including five international champions and two national show champion ewes. Wedel Southdowns also won the Challenge Cup at Chicago and Louisville for best block seven times. He was named world premier exhibitor eight times, also in the '70s.

Wedel and his wife, Florene, produce about 200 head of purebred Southdowns and more than 100 Hampshires on a 480-acre farm. In addition to dryland crops of wheat and milo, he has 10 acres of native pasture and 40 acres of alfalfa and some sudan. The couple's three sons also are involved in the sheep enterprise.

The 1981 Kansas Honey Queen, a goodwill ambassador for Kansas honey producers, was Charlotte Brame. She is the daughter of Mr. and Mrs. Henry Brame, Kansas City, Kan.

Floyd and JoAnn Nickel Honored

Honored from the membership of the Kansas Young Farmer and Young Farm Wives were the Floyd and JoAnn Nickel family of Newton during 1981. They were named the Kansas Star Young Farm Family at the group's annual convention in February.

The Nickels farm 2,034 acres of corn, grain sorghum, wheat, alfalfa and prairie hay, most of which is stored on their farm and sold at various times throughout the year. Some milo is fed to the 200 heifers they buy each year. They feed the cattle from around 400 to 700 or 750 pounds, then sell them as feeders.

The young couple has purchased and constructed steel bins, concrete bunks and a silo; they have renovated existing farm buildings and remodeled several rooms in their farm home. Other renovations have included drainage work on cropland and rebuilding or replacing 1,400 feet of fences around their cattle lots.

Second place in the year's competition went to George and Joyce Royer, Holton; third place to Lawrence and Susan Gosselin of Oxford.

Professor Mosier Leads AVMA

Dr. Jacob E. Mosier, professor and head of the department of surgery and medicine at the College of Veterinary Medicine at Kansas State University, assumed the presidency of the American Veterinary Medical Association in 1981.

The AVMA has a membership of 33,500.

Mosier, who served as vice president of the World Veterinary Association from 1976-1980, received his veterinary degree in 1945 and a master's degree in 1948 from KSU. He joined the faculty in 1945 and is a diplomate of the American College of Veterinary Internal Medicine.

Fulkerson is Limousin Queen

The 1981 Kansas Limousin Queen was Karen Kay Fulkerson, daughter of Mr. and Mrs. Howard Fulkerson, Oswego.

A 1978 graduate of Oswego High School, Karen works in her family farm operation and has worked as a teacher's aide at the Oswego grade school. Karen and her brother, Ed, take responsibility for the family's herd of Limousin cattle. They attended numerous livestock shows.

Karen competed for the national Limousin queen title at the Western National Livestock Show in Denver. She was the first Kansas queen to enter national competition.

Ed Fulkerson, who was a senior at Oswego High School, was serving as vice president of the Kansas Junior Limousin Association. He later was selected as one of four persons in the country to serve a three-year term on the National Board of the North American Junior Limousin Association.

Bartley Honored for Livestock Research

Erle Bartley, ruminant nutritionist from Kansas State University, received the F. B. Morrison Award from the American Society of Animal Science during 1981. Only one such award is given yearly to an outstanding animal scientist who has made a meritorious scientific contribution or discovery in research of direct importance to agricultural livestock.

Bartley has been involved in research and teaching at KSU since 1949. He has been instrumental in several research findings and discoveries that have benefited the cattle industry in the U.S. and abroad.

The citation read at the awards presentation states, "His initial work on antibiotic feeding to dairy calves led to an understanding of the mode of action of antibiotics in animal feed and interaction of antibiotics with nutrients. Dr. Bartley and his graduate students have made many contributions to rumen metabolism. They developed techniques using radioactive isotopes in tracing rates of rumen metabolism in cattle fed alfalfa. Their work provided the first information on when nutrients in an intact forage are metabolized in the rumen."

Bartley's accomplishments have been recognized by numerous awards including the American Feed Manufacturers Award, Outstanding KSU Faculty Research Award, Moorman Travel Award for research in animal nutrition, Award of Merit from Gamma Sigma Delta Honorary society, Kansas Interbreed Dairy Cattle Council's Dairy Leader Award, Fellow of the American Society of Animal Science and the Borden Award.

Bartley, born of British parents in Bangalore, India, received a bachelor of science degree in animal husbandry from Allahabad Agricultural Institute in India and master's and Ph.D. degrees in dairy cattle nutrition from Iowa State University.

Bunck is Premier Seed Grower

John Bunck, Everest, was honored as Kansas Premier Seed Grower at the Kansas Crop Improvement Association annual meeting. The award honors outstanding certified seed growers with approved history of excellence.

Bunck, president of Bunck Seed Farms, Inc., is a second generation seedsman. His father, Henry, began the business. Three sons, Tom, Joe and Bob, now are part of the business.

The seed house is northwest of Everest in Brown County on the family farm. A new seed plant was built in 1975, with a large warehouse added in 1980. Corn and sorghum seed have been mainstays of the business for many years, with soybean and wheat seed increasing rapidly in recent years.

Bunck Seed Farm is the last small hybrid corn and sorghum company producing its own hybrids in Kansas.

FARM FACTS

KANSAS CROP AND LIVESTOCK INFORMATION FOR 1980 AND PRELIMINARY ESTIMATES FOR 1981

1981 Agriculture Review	116
Kansas Rank in U. S. Agriculture	118
Kansas Agribusiness	122
Crops	125
Weather in 1981	127
Irrigation	133
Kansas Wheat	139
Crop County Estimates	142
Livestock Numbers and Production	213
Dairy and Poultry Production	229
Farm Income and Prices	238

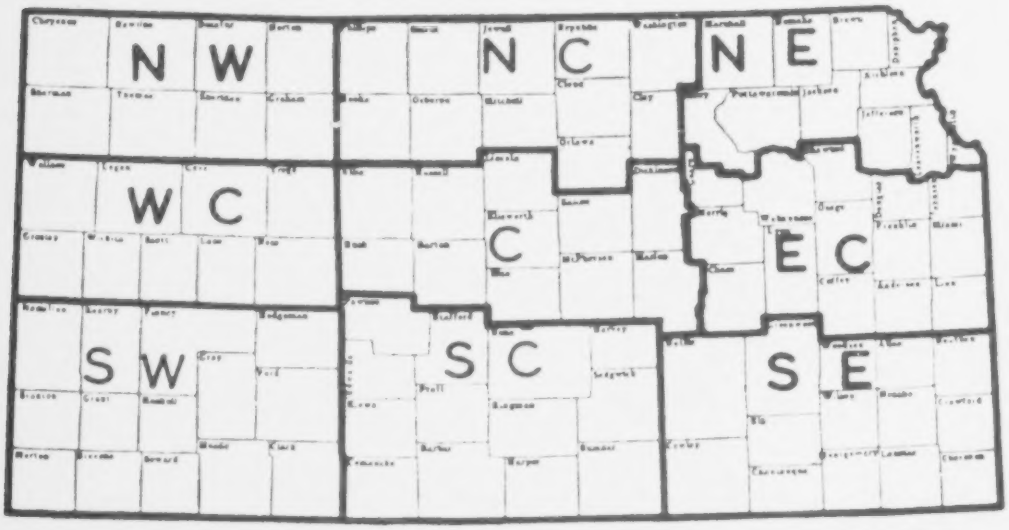
Material in this publication was prepared by the Statistical Division of the Kansas Department of Agriculture, cooperating with the Statistical Reporting Service of the United States Department of Agriculture.

Statistical Division offices are located in Room 290, Federal Building, Topeka, Kansas 66683.

Members of the staff include: M. E. Johnson, State Statistician; William H. Kastens, Assistant State Statistician; Robert L. Vossen, Charles L. Ruckman, Phillip L. Doctor, G. Eric Waldhaus, Larry Canion, Herbert L. Vanderberry, Agricultural Statisticians; Theresa E. Holland, Dennis L. Clason, Mathematical Statisticians; William L. Brooks, Systems Analyst; Melvin E. Perott, Programmer; Darlene M. Wilson and Geraldine Fast, Editorial Staff.

The Kansas Crop and Livestock Reporting Service wishes to thank the many thousands of farmers and business firms whose faithful service as reporters make this publication possible.

CROP REPORTING DISTRICTS



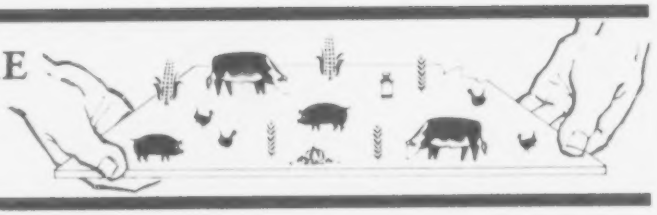
Kansas is divided into nine crop reporting districts for convenience in compiling and presenting statistical information on crops and livestock. These nine districts are outlined on the above map. The districts are designated as follows: northwest (NW), west central (WC), southwest (SW), north central (NC), central (C), south central (SC), northeast (NE), east central (EC), and southeast (SE). In tables showing statistical information by counties in this bulletin, counties within each district are grouped together in alphabetical order. Totals and averages are shown for each district.

NUMBER OF FARMS [1] AND LAND IN FARMS

Year	Number of Farms	Average Size of Farm	Acres in Farms	Year	Number of Farms	Average Size of Farm	Acres in Farms
	(000)	Acres	(000)		(000)	Acres	(000)
1900	173	241	41,700	1975	79	616	48,700
1910	178	244	43,400	1976	78	623	48,600
1920	167	272	45,400	1977	77	629	48,400
1930	166	283	47,000	1978	76	636	48,300
1940	159	303	48,200	1979	75	644	48,300
1950	135	374	50,500	1980	75	644	48,300
1960	110	456	50,200	1981	76	638	48,500
1970	87	574	49,900	1982	76	638	48,500

1. Beginning with 1975, a farm is defined as any place with annual sales of agricultural products of $1,000 or more. Between 1959 and 1975 a farm was defined as a place of 10 or more acres that had annual sales of agricultural products of $50 or more or a place of less than 10 acres that had annual sales of $250 or more. Prior to 1959 a farm was defined as a place three acres or more in size with a value of farm products amounting to $150 or more. Places of less than three acres with sales of $250 or more were also considered farms.

AGRICULTURE REVIEW



BY W. H. KASTENS

POOR WHEAT CROP—GOOD ROW CROPS

The wheat crop harvested in 1981 had the lowest yield per acre since 1967, an average of 25 bushels, down 10 bushels from the 1980 average. The freeze-damaged crop amounted to only 305,000,000 bushels, 27 percent below the 1980 record wheat production. A record large soybean crop resulted from plentiful rains received in late summer and somewhat cool August temperatures. Production totaled 45.3 million bushels, nearly double the drought-reduced crop of 1980. The average yield per acre was a record 30 bushels. Sorghum grain production totaled 238.5 million bushels, the second largest on record. The average yield of 67 bushels per acre was two bushels below the record set in 1979. The corn crop totaled 158.8 million bushels, with a record yield of 126 bushels per acre. Production of all hay totaled a record 6.07 million tons. The total value of all crops produced during 1981 was $2.7 billion, down five percent from the previous year and 11 percent below the record of 1979.

LIVESTOCK INVENTORIES DECLINE

The January 1, 1982 inventory of cattle and calves totaled 6.0 million head, seven percent less than the previous year. Beef cows declined four percent and heifers held for beef cow replacement declined seven percent. Calves born during 1981 totaled 1,770,000 head, down four percent from 1980. The value of the January 1 cattle inventory was off 21 percent.

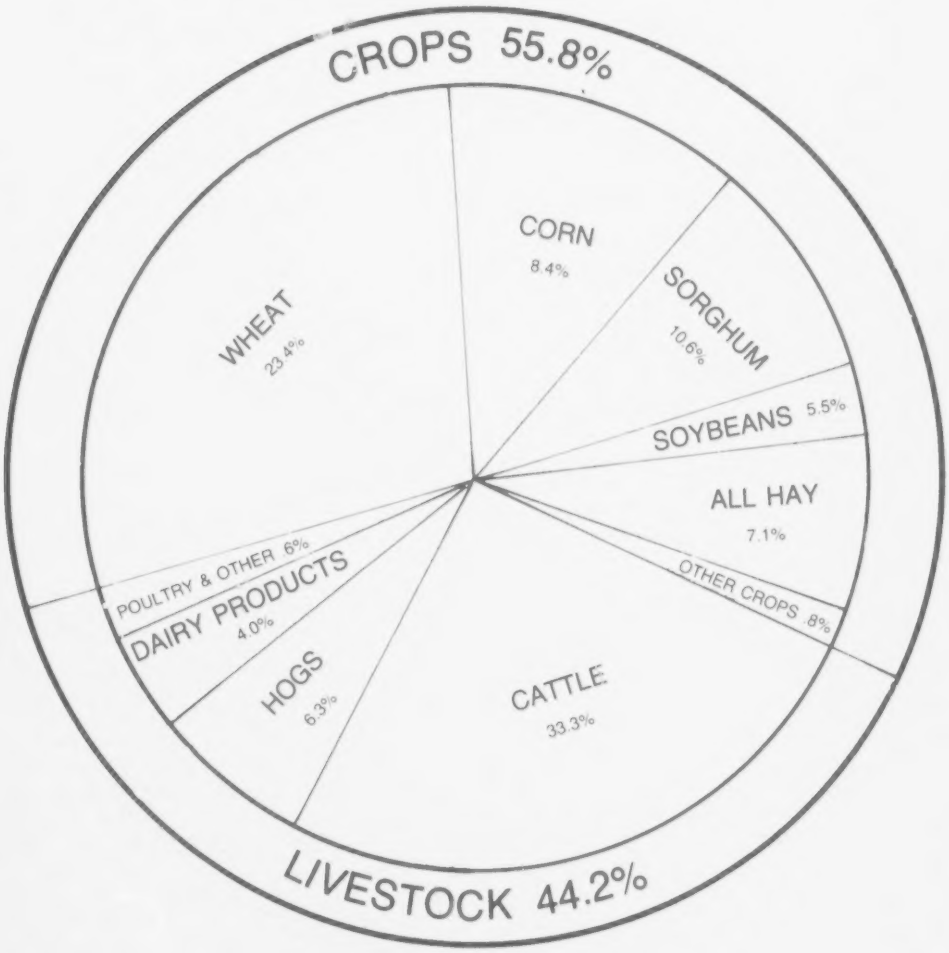
The December 1, 1981 hog inventory totaled 1,770,000 head, seven percent below December 1, 1980 and was the smallest December 1 inventory since 1975. Breeding stock was down 17 percent while market hogs were off five percent from the previous year. Farrowing intentions for 1982 were off sharply and hog slaughter through much of the year is expected to be well below a year earlier. Value of the December 1 inventory was down nine percent from the previous year.

Sheep and lamb numbers continued their downward trend and on January 1, 1982 totaled 200,000 head, nine percent below the previous year and the second consecutive year of declining numbers. Sharply lower lamb prices through late 1981 caused sheep producers to be faced with a poor price-cost situation. Value of the sheep inventory totaled $10.7 million, down 21 percent from the previous year.

COSTS SPIRAL—FARM INCOME FALLS

During 1981 inflation continued to push up farm production costs but farm prices were significantly below previous year levels during the last half of the year. The year-end parity ratio, at 57, was nine points below the previous year and the lowest since 1933. Cash receipts from farm marketings showed the second consecutive year of decline during 1981. Total cash receipts of nearly $5.8 billion were two percent less than 1980 and eight percent below the record high of $6.3 billion in 1979. Receipts from livestock and livestock products sold during 1981 declined three percent from the previous year and were down 13 percent from 1979. Livestock sales accounted for 57 percent of the total dollar receipts in 1981. Cash receipts from crops fell one percent to $2.5 billion.

VALUE OF PRODUCTION, 1981



PERCENT OF VALUE OF PRODUCTION

Year	Crops						Livestock and their products				Total Crops and Livestock
	Wheat	Corn Grain	Sorghum Grain	Soybeans	All Hay	Other Crops	Cattle	Hogs	Dairy Products	Poultry, Eggs & Other Livestock	
	Percent of total										
1972	19.8	7.4	11.3	3.7	5.5	.9	39.3	7.6	3.7	.8	100.0
1973	33.0	8.7	10.7	3.4	5.1	.9	28.4	6.6	2.4	.8	100.0
1974	33.3	10.7	9.6	3.4	5.3	1.4	25.4	7.0	3.1	.8	100.0
1975	35.3	10.4	9.8	3.2	6.9	1.3	21.1	7.6	3.6	.8	100.0
1976	26.9	11.2	9.4	2.6	7.6	1.4	27.2	8.6	4.2	.9	100.0
1977	23.2	9.6	12.3	4.7	7.0	1.1	28.3	8.8	4.1	.9	100.0
1978	22.3	9.2	10.1	4.6	5.4	.9	34.8	8.1	3.8	.8	100.0
1979	28.0	7.9	9.9	4.5	5.2	.6	34.3	6.0	2.9	.7	100.0
1980	30.8	7.1	8.4	3.5	4.9	.8	35.1	5.5	3.4	.5	100.0
1981	23.4	8.4	10.6	5.5	7.1	.8	33.3	6.3	4.0	.6	100.0

KANSAS' RANK IN U. S. AGRICULTURE—1981

Crop or Livestock Item	Production or number		Rank	% of U.S. Produced on Kansas Farms
Sorghum silage produced	3,780,000	tons	1	41.4
Commercial grain storage capacity January 1, 1982	842,000,000	bu.	1	11.6
Flour milling capacity	194,250	cwt.	1	11.6
Flour milled	33,476,000	cwt.	1	11.7
Wheat (all produced)	305,000,000	bu.	2	10.9
Sorghum grain produced	238,520,000	bu.	2	27.1
Motor trucks on farms	165,600	number	2	4.6
Cropland [1]	30,019,593	acres	2	6.5
Grain drills on farms	79,000	number	2	6.5
Dehydrated alfalfa processed	123,000	tons	2	—
Lespedeza seed produced	1,715,000	lbs.	2	22.2
Land in farms	48,500,000	acres	3	4.6
Combines on farms	47,800	number	4	6.9
All cattle and calves produced	2,753,420,000	lbs.	4	6.7
Cattle and calves on grain feed January 1, 1982	1,110,000	head	4	11.0
All cattle and calves on farms January 1, 1982	6,000,000	head	4	5.2
Red meat production by commercial slaughter plants	2,733,696,000	lbs.	4	7.1
Tall fescue seed	3,330,000	lbs.	5	3.0
All other hay (all excluding alfalfa)	2,470,000	tons	5	4.2
Exports of farm products	2,262,800,000	dollars	6	5.2
Cash receipts from farm marketings	5,774,358,000	dollars	7	4.1
Alfalfa hay produced	3,600,000	tons	7	4.3
All hay produced	6,070,000	tons	8	4.2
Hogs produced	722,452,000	lbs.	8	3.3
Sheep and lambs on feed January 1, 1982	60,000	head	8T	3.8
Alfalfa seed produced	3,150,000	lbs.	9	2.7
Popcorn produced	8,900,000	lbs.	9	1.1
Hogs on farms December 1, 1981	1,770,000	head	9	3.0
Dry edible beans	680,000	cwt.	10	2.1
Corn grain produced	158,760,000	bu.	11	1.9
Field forage harvesters on farms	11,600	number	11	3.0
Corn silage produced	2,890,000	tons	12	2.5
Wheel and crawler tractors on farms	161,500	number	13	3.3
Sugar beets produced	284,000	tons	13	1.0
Red clover seed produced	298,000	lbs.	14	1.7
Soybeans produced	45,300,000	bu.	15	2.2
All sheep and lambs on farms January 1, 1982	200,000	head	17	1.5
Rye produced	252,000	bu.	17	1.4
All sheep and lambs produced	12,486,000	lbs.	18	1.6
Barley produced	1,664,000	bu.	20	.3
Milk produced	1,397,000,000	lbs.	24	1.1
Farm chickens produced	9,196,000	lbs.	28	.8
Eggs produced	416,000,000	number	34	.6

1. Total cropland, 1978 U. S. Census of Agriculture.

LEADING STATES FOR AGRICULTURAL EXPORT SHARES, FISCAL YEAR 1981

Commodity group	United States	Leading 10 States by value									
		1	2	3	4	5	6	7	8	9	10
		Million Dollars									
Total agricultural exports	43,788.5	Iowa 3,737.2	Ill. 3,622.0	Calif. 3,588.4	Texas 2,576.7	Minn. 2,344.1	Kans. 2,262.8	Nebr. 2,113.6	Ind. 2,011.8	Ohio 1,633.0	Mo. 1,318.6
Feed grains and products	11,149.8	Iowa 1,952.1	Ill. 1,772.2	Nebr. 1,204.5	Ind. 966.2	Minn. 833.6	Ohio 662.0	Tex. 587.2	Kans. 504.0	Mich. 406.5	Wis. 384.7
Wheat and Products	8,051.7	Kans. 1,448.4	Okla. 672.4	N. Dak. 552.6	Wash. 550.9	Tex. 448.3	Mont. 401.7	Nebr. 386.6	Colo. 378.7	Minn. 341.6	Idaho 326.8
Soybeans and products	8,038.9	Iowa 1,428.3	Ill. 1,390.1	Ind. 707.3	Minn. 672.6	Mo. 607.8	Ohio 607.2	La. 300.5	Ark. 292.7	Miss. 276.3	Nebr. 238.2
Cotton and linters	2,247.5	Tex. 675.9	Calif. 628.3	Ariz. 288.2	Miss. 231.0	La. 93.0	Ark. 89.7	Ala. 55.6	Okla. 41.4	Tenn. 40.4	Mo. 35.8
Rice	1,537.4	Ark. 557.6	Calif. 374.1	Tex. 263.0	La. 220.1	Miss. 97.8	Mo. 24.8				
Fruits and preparations	1,513.2	Calif. 825.7	Fla. 309.8	Wash. 94.1	Ariz. 40.3	Oreg. 35.9	Tex. 35.2	Mich. 34.0	N.Y. 30.4	Hawaii 20.0	Pa. 16.4
Vegetables and preparations	1,445.7	Calif. 417.2	Wash. 201.8	Mich. 154.5	Idaho 134.0	Oreg. 53.4	Minn. 52.8	N. Dak. 52.7	Fla. 51.3	Wis. 49.8	Colo. 48.1
Tobacco, unmanufactured	1,338.5	N. C. 710.0	Ky. 179.1	S. C. 118.2	Ga. 104.2	Va. 90.0	Tenn. 52.9	Fla. 19.2	Md. 18.1	Conn. 17.2	Mass. 7.6
Animals and meats, excl. poultry	1,179.8	Iowa 129.9	Tex. 107.5	Nebr. 67.5	Ill. 60.7	Kans. 59.1	Mo. 55.7	Minn. 54.0	Okla. 44.8	S. Dak. 44.7	Calif. 44.5
Hides and skins, incl. furskins	1,002.0	Wis. 112.6	Tex. 90.9	Minn. 65.3	Iowa 61.7	Utah 49.5	Nebr. 47.9	Kans. 46.7	Okla. 37.9	S. Dak. 37.2	Ill. 34.0
Poultry and products	765.2	Ark. 86.9	Ga. 82.1	Ala. 66.4	N.C. 63.4	Calif. 49.3	Miss. 36.4	Tex. 36.4	Ind. 33.3	Md. 31.9	Pa. 25.5
Animal fats and greases	756.2	Tex. 92.6	Iowa 65.1	Nebr. 54.0	Kans. 51.2	Okla. 40.7	S. Dak. 33.6	Mo. 33.4	Colo. 29.3	Calif. 29.0	Minn. 28.1
Sunflower seeds and oil	629.9	N. Dak. 363.6	Minn. 176.4	S. Dak. 81.5	Tex. 8.4						
Nuts and preparations	508.5	Calif. 474.6	Hawaii 17.9	Oreg. 6.4	Ga. 5.4	Ala. 1.0	N. Mex. .8	La. .7	Tex. .6	Fla. .3	Miss. .2
Dairy products	246.1	Wis. 47.3	Minn. 42.3	Calif. 27.8	N.Y. 19.8	Pa. 9.4	Mich. 8.2	Iowa 7.2	Ohio 6.7	Mo. 3.0	S. Dak. 2.3
All other	3,378.1										

FARM, CROP AND LIVESTOCK INFORMATION, 1981

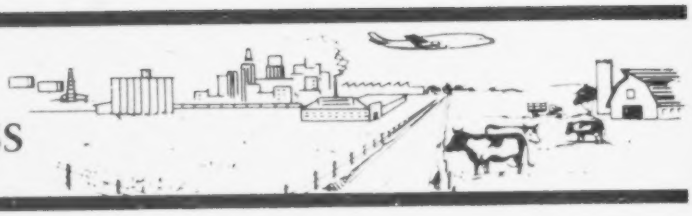
County	Number of Farms	Total Land in Farms, (000) acres	Total acres harvested	Total Value of field crops,[1] dollars	Total Value of livestock and poultry produced,[2] dollars
Northwest District:					
Cheyenne	565	638	216,590	32,312,900	9,219,700
Decatur	530	558	167,590	16,677,600	14,982,200
Graham	470	563	172,840	15,854,200	9,318,300
Norton	535	523	157,220	17,074,100	13,668,300
Rawlins	630	673	195,560	20,528,600	11,907,300
Sheridan	550	546	190,700	30,838,300	18,037,900
Sherman	560	654	308,790	44,221,800	10,585,500
Thomas	640	692	274,510	37,661,700	9,965,900
District total	4,480	4,847	1,683,800	215,169,200	97,685,100
West Central District:					
Gove	500	629	166,600	17,575,200	19,409,300
Greeley	310	489	230,660	20,133,900	16,565,100
Lane	325	464	140,990	11,628,800	30,463,800
Logan	430	650	166,780	14,011,100	11,602,500
Ness	610	668	200,140	14,424,200	13,320,300
Scott	435	456	202,330	28,534,700	51,178,300
Trego	510	514	174,900	15,792,200	12,556,400
Wallace	340	516	184,430	28,424,000	5,471,800
Wichita	340	446	239,070	33,122,800	32,678,900
District total	3,800	4,832	1,705,900	183,646,900	193,246,400
Southwest District:					
Clark	335	617	95,080	8,225,300	17,758,400
Finney	600	763	412,440	72,140,100	81,941,100
Ford	820	697	345,640	49,830,000	69,765,800
Grant	295	367	204,990	33,424,700	34,201,200
Gray	500	533	331,780	65,418,400	36,080,200
Hamilton	280	572	220,210	20,110,500	12,645,600
Haskell	335	389	247,110	61,230,100	52,508,500
Hodgeman	470	512	156,940	15,617,800	21,155,700
Kearny	300	522	239,030	31,008,200	19,173,900
Meade	485	622	177,510	27,629,400	17,437,100
Morton	285	445	220,130	20,305,200	9,606,100
Seward	325	347	178,010	27,781,800	38,193,800
Stanton	255	472	236,610	32,324,300	13,643,900
Stevens	335	457	305,370	36,671,900	10,856,900
District total	5,620	7,315	3,370,850	501,717,700	434,968,200
North Central District:					
Clay	810	381	199,320	27,080,500	22,089,200
Cloud	790	421	235,280	28,712,500	9,986,100
Jewell	840	521	279,690	34,369,200	20,592,200
Mitchell	700	468	244,620	25,195,900	16,276,100
Osborne	690	557	201,850	23,006,100	15,947,700
Ottawa	650	423	204,540	21,639,600	14,840,400
Phillips	710	564	181,650	21,856,900	18,300,900
Republic	970	433	254,200	37,959,600	24,766,100
Rooks	555	554	179,540	17,883,500	15,130,700
Smith	795	552	244,030	36,444,300	22,594,200
Washington	1,190	539	274,980	39,260,400	32,982,800
District total	8,700	5,413	2,499,700	313,408,500	213,506,400
Central District:					
Barton	1,060	589	323,410	37,627,000	34,302,400
Dickinson	1,200	542	304,390	37,950,800	28,942,200
Ellis	825	541	173,150	15,125,000	17,248,400
Ellsworth	580	436	164,480	16,039,200	9,259,500
Lincoln	640	454	185,070	20,410,500	15,604,100
McPherson	1,600	562	353,920	44,693,000	25,931,600
Marion	1,210	571	314,160	39,503,800	38,307,100
Rice	705	475	278,790	40,241,300	22,309,300
Rush	620	451	188,610	15,973,500	9,490,500
Russell	670	499	177,050	17,879,400	12,197,500
Saline	790	408	227,870	24,751,800	19,019,000
District total	9,900	5,528	2,690,900	310,195,300	232,611,600

FARM, CROP AND LIVESTOCK INFORMATION, 1981—*Concluded*

County	Number of farms	Total Land in Farms, (000) acres	Total acres harvested	Total Value of field crops,[1] dollars	Total Value of livestock and poultry produced,[2] dollars
South Central District:					
Barber	570	703	190,140	18,000,000	22,036,300
Comanche	330	512	98,410	8,288,200	12,472,100
Edwards	450	381	231,320	33,012,300	13,324,100
Harper	755	523	328,840	36,784,800	20,616,100
Harvey	890	326	240,310	29,113,900	21,219,700
Kingman	870	533	292,080	32,961,900	15,935,900
Kiowa	385	462	165,730	22,000,300	11,537,100
Pawnee	575	467	284,610	35,904,000	16,037,200
Pratt	570	454	283,720	39,406,500	27,194,700
Reno	1,610	733	461,930	56,055,700	30,675,500
Sedgwick	1,585	554	365,760	39,407,900	31,404,200
Stafford	585	462	296,230	39,248,300	16,375,900
Sumner	1,425	723	553,220	65,649,200	15,975,600
District total	10,600	6,833	3,792,300	455,833,000	254,804,400
Northeast District:					
Atchison	805	244	161,930	25,608,100	17,040,400
Brown	900	348	251,790	53,265,800	21,628,500
Doniphan	670	231	162,990	39,115,400	12,617,500
Jackson	1,185	376	177,140	26,663,000	20,250,300
Jefferson	1,080	281	160,280	25,690,600	18,710,800
Leavenworth	1,180	215	116,720	18,304,500	19,246,700
Marshall	1,185	546	327,830	52,180,100	29,641,700
Nemaha	1,165	419	234,040	43,567,500	40,119,500
Pottawatomie	930	461	171,420	29,192,400	27,082,000
Riley	550	259	101,300	17,326,100	15,856,900
Wyandotte	350	30	12,910	2,493,500	1,697,100
District total	10,000	3,410	1,878,350	333,407,000	223,891,400
East Central District:					
Anderson	800	371	186,330	28,188,200	18,464,100
Chase	325	425	62,720	8,277,900	13,694,100
Coffey	715	361	189,380	25,796,000	13,156,100
Douglas	770	237	145,410	23,366,000	16,672,700
Franklin	1,105	311	172,490	26,831,700	18,525,400
Geary	275	169	63,890	9,088,500	11,287,000
Johnson	770	175	76,920	12,165,200	10,673,100
Linn	810	310	140,290	18,927,500	15,957,700
Lyon	935	482	206,990	27,640,100	33,192,700
Miami	1,345	309	151,120	22,379,000	18,731,100
Morris	630	418	165,020	22,379,700	24,501,900
Osage	840	378	202,890	28,146,700	15,455,400
Shawnee	855	226	132,300	22,945,600	7,782,300
Wabaunsee	725	438	129,150	18,092,800	20,303,300
District total	10,900	4,610	2,024,900	294,224,900	238,396,900
Southeast District:					
Allen	765	300	174,720	24,783,200	14,056,100
Bourbon	935	355	140,860	16,968,500	22,990,200
Butler	1,350	751	269,600	32,576,400	40,090,100
Chautauqua	470	356	37,840	4,091,300	13,447,100
Cherokee	890	300	254,080	35,564,900	7,946,300
Cowley	1,140	678	214,710	19,434,900	26,619,900
Crawford	1,010	311	182,330	24,104,400	16,596,100
Elk	475	353	54,780	4,738,600	10,945,200
Greenwood	750	650	93,410	11,288,100	25,356,900
Labette	1,175	370	208,530	27,520,400	22,699,900
Montgomery	980	331	149,310	18,847,200	14,493,400
Neosho	950	316	166,380	20,779,200	21,559,800
Wilson	650	326	168,960	20,186,600	15,578,400
Woodson	460	315	105,690	13,623,800	14,714,200
District total	12,000	5,712	2,221,200	274,507,500	267,093,600
State	76,000	48,500	21,867,900	2,882,110,000	2,156,204,000

1. Excluding estimates of seed crops which are not made currently on a county basis. Does not include any Government Program Payments or value estimates for sugar beets.
2. Includes meat animals, chickens, eggs, turkeys, wool, milk, honey and beeswax.

KANSAS AGRIBUSINESS



BY LARRY CANION

GRAIN, HAY AND OILSEED PROCESSING

Flour production in 1981, at 33.5 million sacks, was up two percent from a year earlier while the value of flour produced moved up four percent from the previous year to a record $346.3 million. Mill feed production for 1981 was up five percent at 592.5 million tons but value at $56.4 million was down from 1980 levels. Soybean oil production in 1981 totaled 444.7 million pounds, up 9.1 million pounds from 1980 and second only to the 448.6 million pounds produced in 1979. Oilseed crushers also produced 971.1 thousand tons of soybean meal in 1981, down only marginally from 1980 output. Lower prices pushed the combined value of soybean oil and meal in 1981 down to 264.1 million dollars, a decrease of 15 percent from 1980. Dehydrated alfalfa meal production totaled 123,000 tons in 1981, down 16 percent from 1980 while sun-cured alfalfa meal production of 91,200 tons was 24 percent below 1980.

COMMERCIAL FEED PRODUCTION

Total sales of commercially prepared feeds in 1981 totaled 2.2 million tons, down 10 percent from 1980. Value of the feeds dropped only two percent to $508.9 million.

FERTILIZER

Fertilizer usage in Kansas in FY 1981 declined in both the fall of 1980 and spring of 1981. All three primary ingredients, nitrogen, phosphoric acid and potash declined from year earlier levels. Three-fourths of the 1981 Kansas wheat acreage was fertilized. Nitrogen was the most often used ingredient and was applied at higher rates per acre than either phosphoric acid or potash. Of the wheat acreage fertilized, nearly 80 percent was applied at or before seeding.

FLOUR AND MILL FEED PRODUCTION, 1972-81

Year	Number of plants	Wheat ground (000 bushels)	Flour produced		Mill feed produced	
			Quantity (000 sacks)	Value (000 dollars)	Quantity (tons)	Value (000 dollars)
1972	21	74,652	33,947	199,167	583,888	27,513
1973	21	73,662	33,443	282,727	578,564	45,938
1974	21	67,343	30,681	339,301	549,190	50,141
1975	21	67,150	30,497	285,604	564,195	46,603
1976	22	80,481	36,037	299,215	630,648	56,317
1977	27	78,524	35,769	223,413	633,111	48,560
1978	24	76,843	34,731	259,336	607,793	45,341
1979	20	79,237	35,818	331,961	623,233	56,278
1980	19	72,210	32,785	331,653	563,902	57,856
1981	19	74,212	33,476	346,343	592,525	56,408

SOYBEAN OIL AND MEAL PRODUCTION, 1973-81

Year	Number of plants	Soybean oil (000 pounds)	Soybean meal (tons)	Combined value (000 dollars)
1973	4	377,042	811,774	237,571
1974	4	377,359	836,179	225,271
1975	4	352,078	797,548	182,284
1976	4	387,098	857,485	263,842
1977	4	315,146	656,225	184,543
1978	4	401,450	875,629	275,616
1979	4	448,586	965,402	284,622
1980	4	435,554	972,470	311,045
1981	4	444,676	971,110	264,143

ALFALFA MEAL, 1973-81

	Dehydrated alfalfa meal			Sun-cured alfalfa meal	
Crop Year May-April	Number of drums	Production (tons)	Value (000 dollars)	Production (tons)	Value (000 dollars)
1973-74	69	195,800	15,243	35,100	2,601
1974-75	68	165,900	13,139	29,400	2,242
1975-76	64	164,100	12,882	27,400	2,137
1976-77	64	174,000	16,460	33,200	3,081
1977-78	60	187,800	14,564	94,100	6,418
1978-79	56	155,900	12,168	95,500	7,396
1979-80	56	169,200	17,157	94,100	8,577
1980-81	54	146,800	15,590	120,500	12,725
1981-82	41	123,000	13,739	91,200	9,335

COMMERCIAL FEEDS, 1973-81

Year	Number of feed manufacturers registered	Commercial feeds sold*		Customer formula feeds (000 tons)	Total commercial and customer formula feeds (000 tons)
		Quantity (000 tons)	Value (000 dollars)		
1973	876	1,939	314,118	902	2,841
1974	873	2,078	344,948	761	2,839
1975	826	1,764	276,948	670	2,434
1976	792	2,287	384,216	742	3,029
1977	755	1,822	326,138	733	2,555
1978	759	2,213	376,210	809	3,022
1979	783	2,397	462,621	888	3,285
1980	745	2,480	518,320	819	3,299
1981	761	2,242	508,937	731	2,973

* Commercial feeds include manufactured formula feeds and feed ingredients.

FOREST, GREENHOUSE AND NURSERY PRODUCTS, 1973-81

Year	Forest products (dollars)	Greenhouse & Nursery products (dollars)
1973	1,000,000	9,100,000
1974	2,000,000	11,500,000
1975	1,800,000	12,900,000
1976	1,500,000	15,000,000
1977	2,000,000	16,000,000
1978	2,200,000	18,000,000
1979	2,500,000	20,000,000
1980	2,500,000	20,000,000
1981	2,700,000	23,000,000

COMMERCIAL FERTILIZER SOLD IN KANSAS, 1976-81

	Nitrogen	Available Phosphoric Acid	Potash	Total
	— Tons —			
Fall, 1976	270,963	115,001	24,294	410,258
Spring, 1977	367,613	75,175	29,564	472,352
Total, 1976-77	638,576	190,176	53,858	882,610
Fall, 1977	221,952	75,071	14,156	311,179
Spring, 1978	376,529	85,893	29,137	491,559
Total, 1977-78	598,481	160,964	43,293	802,738
Fall, 1978	273,144	104,182	21,502	398,828
Spring, 1979	332,138	95,287	29,934	457,359
Total, 1978-79	605,282	199,469	51,436	856,187
Fall, 1979	336,231	132,488	37,872	506,591
Spring, 1980	303,791	73,144	26,325	403,260
Total, 1979-80	640,022	205,632	64,197	909,851
Fall, 1980	346,311	115,837	27,782	489,930
Spring, 1981	289,759	89,747	19,018	398,524
Total, 1980-81	636,070	205,584	46,800	888,454

TOTAL FERTILIZER SOLD IN KANSAS, 1950-81

Fiscal year (July 1-June 30)	Fall	Spring	Total
	— Tons —		
1950-51	103,312	77,457	180,769
1960-61	207,637	198,316	405,953
1970-71	435,431	732,158	1,167,589
1971-72	483,734	761,226	1,244,960
1972-73	513,584	856,502	1,370,086
1973-74	708,712	820,456	1,529,168
1974-75	745,236	716,329	1,461,565
1975-76	721,369	905,326	1,626,695
1976-77	704,346	932,896	1,637,242
1977-78	544,958	861,252	1,406,210
1978-79	672,009	906,341	1,578,350
1979-80	858,105	779,045	1,637,150
1980-81	830,065	769,022	1,599,087
1981	763,359		

FERTILIZER USED ON WHEAT IN KANSAS, 1977-1981

Item and Unit	1977	1978	1979	1980	1981
Acres harvested — 000 acres	12,100	10,000	10,800	12,000	12,200
Fields in survey — Number	289	285	262	265	253
Acres receiving:					
Any fertilizer — Percent	71.6	63.5	70.2	75.8	75.9
N — Percent	71.3	62.8	70.2	75.8	75.5
P_2O_5 — Percent	40.8	30.2	38.2	39.6	43.5
K_2O — Percent	8.3	6.3	8.8	9.8	11.9
Rate per acre receiving:					
N — Pounds	49.1	50.2	49.8	55.6	54.2
P_2O_5 — Pounds	33.9	30.2	34.8	33.7	34.0
K_2O — Pounds	21.3	18.0	24.6	31.4	30.1
Acres fertilized [1]:					
At or before seeding — Percent	77.3	77.9	77.2	78.6	79.2
After seeding only — Percent	7.3	8.3	4.9	7.5	5.2
At or before and after seeding — Percent	15.4	13.8	17.9	13.9	15.6

1. Percentages apply to acres receiving fertilizer, not to total acres harvested.

CROPS

BY THERESA E. HOLLAND

Fall planted wheat and barley crops suffered sharp reductions in 1981 production, while nearly all spring planted crops registered substantial increases from year earlier production levels. Record productions were posted for soybeans and dry beans, and sorghum grain production was the second largest of record. The roughage crops of hay and silage showed production increases and the total hay tonnage reached record levels. Dry conditions in the fall of 1980 continued into spring of 1981. Warm spring weather stimulated early growth in the wheat and barley crops, enabling early May frosts to catch the crops in the critical flowering stage and cause considerable damage. Generous rains in May and June, which hampered wheat and barley harvest efforts, delayed spring planting, but provided excellent growing moisture for the late crops and hay. Late seeded sorghum was plagued by chinch bugs and weeds. Relatively cool August weather slowed crop development, so that mid-September frosts caused some damage in scattered areas. Rain also hampered the harvest of row crops.

Increases in acreages from 1980 were recorded for all feed and food grain crops, as well as soybeans, dry beans, hay, lespedeza seed and tall fescue seed. The total crop acreage harvested in 1981 was 21.9 million acres, compared with 21.7 million acres in 1980. Yields of nearly all spring crops and hay were well above year earlier levels. Corn for grain, oats, soybeans, sugar beets, dry beans, hays, and silage crops registered record yields in 1981, while the sorghum grain yield was a near record.

WHEAT

Kansas wheat production totaled 305.0 million bushels in 1981, 27 percent below the 1980 record wheat production. Of the 14.0 million acres seeded to wheat in 1981, 12.2 million acres were harvested for grain, a two percent increase from 1980. The average yield of 25.0 bushels per acre was 10 bushels below the 1980 yield and the lowest average wheat yield since 1967.

SORGHUM

Kansas farmers produced 238.5 million bushels of sorghum grain in 1981, 59 percent more than in drought-ridden 1980 and the second largest of record. Sorghum acreage cut for grain totaled 3.6 million acres, two percent more than in 1980. Sorghum grain yields averaged 67.0 bushels per acre, 24 bushels above the 1980 average, and only two bushels below the record yield of 1979.

CORN

The corn crop of 158.8 million bushels of grain was 43 percent greater than the disappointing crop of 1980. Grain was harvested from 1.26 million acres, compared with 1.18 million acres harvested for grain a year earlier. The average grain yield was a record 126.0 bushels per acre, 32 bushels more than 1980. White corn production of 3.2 million bushels was up sharply from the 1.2 million bushels of a year earlier. The average yield of 95.0 bushels per acre was more than double the 1980 average.

SOYBEANS

Soybean production was a record 45.3 million bushels, nearly double the 23.9 million bushels produced in 1980. Both yield and harvested acreage were up from the year earlier levels. The 1.51 million acres of soybeans harvested was four percent more than in 1980, and a record 30.0 bushels per acre yield exceeded the 1980 average by 13.5 bushels.

STATE SUMMARY, 1981

Crops		Acres planted	Acres harvested	Yield per acre	Production	Farm value, dollars
Wheat	bu.	14,000,000	12,200,000	25.0	305,000,000	1,143,750,000
All corn	bu.	1,450,000	1,433,000			
Corn, grain	bu.		1,260,000	126.0	158,760,000	412,776,000
Corn, silage	tons		170,000	17.0	2,890,000	58,089,000
Oats	bu.	240,000	170,000	50.0	8,500,000	16,575,000
Barley	bu.	63,000	52,000	32.0	1,664,000	3,910,000
Rye	bu.	75,000	12,000	21.0	252,000	680,000
All sorghums	bu.	4,250,000	4,140,000			
Sorghum, grain	bu.		3,560,000	67.0	238,520,000	515,203,000
Sorghum, silage	tons		280,000	13.5	3,780,000	61,992,000
Sorghum, forage	tons		300,000	4.0	1,200,000	37,680,000
Soybeans	bu.	1,540,000	1,510,000	30.0	45,300,000	267,270,000
Sugar beets	tons	14,800	14,000	20.3	284,000	[1]
Popcorn	lbs.	3,000	2,900	3,070.0	8,900,000	1,121,000
All hay	tons		2,300,000	2.64	6,070,000	345,990,000
Alfalfa hay	tons		1,000,000	3.60	3,600,000	222,027,000
All other hay	tons		1,300,000	1.90	2,470,000	123,963,000
Alfalfa seed	lbs.		35,000	90.0	3,150,000	2,158,000
Red clover seed	lbs.		3,500	85.0	298,000	209,000
Lespedeza seed	lbs.		7,000	245.0	1,715,000	437,000
Tall fescue seed	lbs.		18,000	185.0	3,330,000	816,000
Apples (commercial)	lbs.				14,000,000	1,463,000
Peaches	lbs.				6,500,000	2,079,000
Dry edible beans	cwt.	35,000	34,000	2,000.0	680,000	12,104,000
Total of all crops			21,931,400			2,884,302,000

1. Price and value not available.

STATE SUMMARY, 1980

Crops		Acres planted	Acres harvested	Yield per acre	Production	Farm value, dollars
Wheat	bu.	13,000,000	12,000,000	35.0	420,000,000	1,587,600,000
All corn	bu.	1,700,000	1,627,000			
Corn, grain	bu.		1,180,000	94.0	110,920,000	368,254,000
Corn, silage	tons		404,000	9.0	3,636,000	79,628,000
Oats	bu.	175,000	120,000	38.0	4,560,000	8,892,000
Barley	bu.	60,000	51,000	41.0	2,091,000	4,809,000
Rye	bu.	60,000	10,000	21.0	210,000	504,000
All sorghums	bu.	4,500,000	4,220,000			
Sorghum, grain	bu.		3,480,000	43.0	149,640,000	435,452,000
Sorghum, silage	tons		295,000	9.0	2,655,000	50,711,000
Sorghum, forage	tons		445,000	2.6	1,173,000	41,642,000
Soybeans	bu.	1,550,000	1,450,000	16.5	23,925,000	180,634,000
Sugar beets	tons	16,000	14,500	13.8	200,000	8,340,000
Popcorn	lbs.	5,500	4,200	2,140.0	8,990,000	890,000
All hay	tons		2,125,000	1.93	4,102,000	254,324,000
Alfalfa hay	tons		975,000	2.85	2,779,000	174,596,000
All other hay	tons		1,150,000	1.15	1,323,000	79,728,000
Alfalfa seed	lbs.		64,000	100.0	6,400,000	4,800,000
Red clover seed	lbs.		6,000	75.0	450,000	261,000
Lespedeza seed	lbs.		5,000	130.0	650,000	237,000
Tall fescue seed	lbs.		17,000	150.0	2,550,000	701,000
Apples (commercial)	lbs.				11,000,000	1,061,000
Peaches	lbs.				6,500,000	1,300,000
Dry edible beans	cwt.	25,000	24,000		336,000	9,710,000
Total of all crops			21,737,700			3,039,750,000

PRECIPITATION IN KANSAS, 1981 AND AVERAGE

Inches of Water

Month	N.W.		W.C.		S.W.		N.C.		C.		S.C.		N.E.		E.C.		S.E.		State	
	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*
January	.70	.47	.33	.47	.12	.43	.16	.59	.15	.62	.09	.64	.13	.95	.20	1.07	.25	1.15	.22	.70
February	.16	.53	.10	.51	.02	.52	.21	.85	.18	.87	.12	.99	.57	.98	.62	1.08	.66	1.24	.28	.85
March	3.12	1.18	2.40	1.22	2.04	.96	1.71	1.54	2.49	1.53	2.00	1.46	1.26	2.05	2.32	2.30	2.11	2.28	2.16	1.59
April	3.74	1.81	1.89	1.80	.79	1.60	2.03	2.37	1.88	2.48	.80	2.52	2.05	3.05	1.58	3.71	1.42	3.91	1.69	2.56
May	8.14	3.09	5.54	2.91	4.51	2.97	6.97	3.92	6.91	3.76	6.32	3.61	6.57	4.46	7.35	4.40	6.86	4.92	6.49	3.77
June	.74	3.80	.37	3.61	1.35	3.19	2.87	4.92	5.42	4.61	3.56	4.27	6.25	6.00	9.20	5.77	6.15	5.48	3.92	4.54
July	4.04	3.26	3.10	3.20	4.39	2.97	5.67	3.57	5.71	3.66	4.38	3.47	7.12	4.24	5.59	4.48	2.57	4.14	4.62	3.63
August	2.11	2.44	1.33	2.60	2.07	2.66	3.14	3.11	3.47	2.99	1.79	3.05	3.89	3.96	3.84	4.03	3.81	3.30	2.78	3.10
September	.65	1.79	1.24	1.67	2.53	1.69	2.30	3.15	2.62	3.19	2.85	2.91	3.14	3.94	2.80	4.36	1.78	4.80	2.24	3.03
October	.38	1.32	.66	1.35	1.10	1.46	.91	1.78	2.16	2.16	3.48	2.25	2.44	2.65	4.01	3.03	6.12	3.00	2.45	2.11
November	1.98	.61	1.61	.66	1.61	.61	2.55	.81	3.84	.90	3.55	.99	3.87	1.18	3.77	1.39	3.76	1.71	2.93	.99
December	.27	.46	.20	.46	.22	.45	.82	.69	.31	.85	.25	.95	.96	1.19	.48	1.42	.31	1.39	.40	.87
Annual	26.03	20.76	18.77	20.46	20.75	19.51	29.34	27.30	35.14	27.63	29.19	27.11	38.25	34.65	41.76	37.04	35.80	37.32	30.18	27.74

* Long-time weather average, 1941-1970.

TEMPERATURES IN KANSAS, 1981 AND AVERAGE

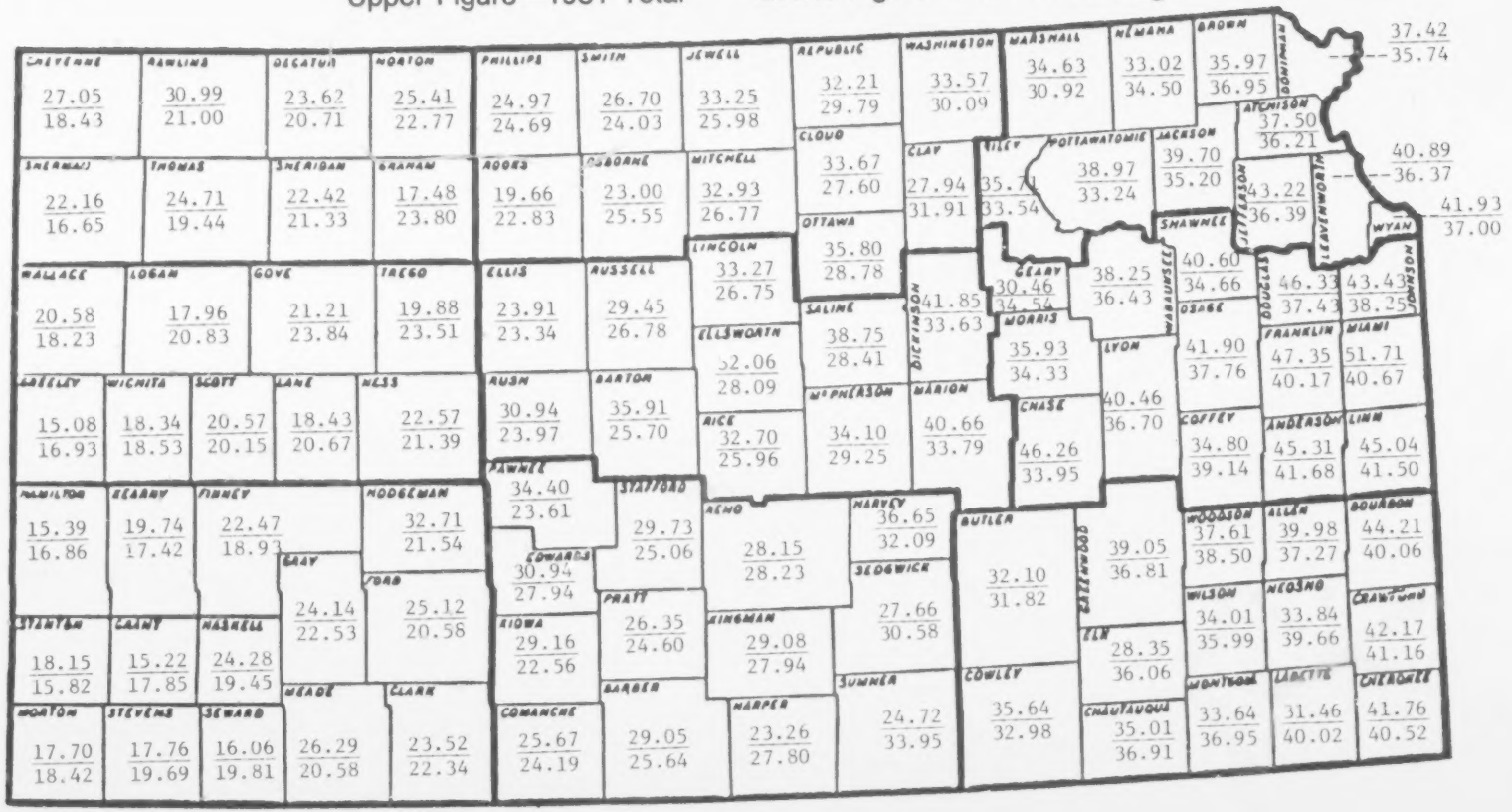
Degrees Fahrenheit

Month	N.W.		W.C.		S.W.		N.C.		C.		S.C.		N.E.		E.C.		S.E.		State	
	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*	1981	Av.*
January	32.5	28.5	33.9	29.7	35.7	32.3	32.0	27.3	33.3	29.5	35.6	32.2	31.2	27.2	32.5	29.9	34.3	33.0	33.7	30.3
February	33.0	33.1	35.7	34.1	38.7	36.7	34.5	32.7	37.7	34.4	40.7	37.1	34.6	32.6	36.1	35.0	38.9	38.1	37.0	35.2
March	42.0	38.5	43.9	39.5	46.0	42.5	44.8	40.0	46.1	41.6	48.0	44.0	45.6	40.7	46.8	42.7	48.6	45.3	46.0	41.9
April	57.4	51.4	59.6	52.3	61.5	55.0	60.8	53.7	62.5	54.9	64.5	56.9	62.6	54.5	63.1	56.1	64.6	58.2	62.0	55.0
May	57.1	61.5	58.6	62.3	61.2	64.6	59.4	63.7	60.8	64.7	62.5	66.2	61.6	64.4	61.2	65.4	63.0	66.8	60.8	64.6
June	73.5	71.2	76.5	72.2	78.0	74.3	74.9	73.5	76.3	74.6	78.5	75.9	74.8	73.3	74.4	74.1	76.7	75.4	76.2	74.0
July	76.8	77.3	78.3	78.0	80.1	79.5	77.9	79.0	79.6	79.8	82.2	80.8	78.3	78.1	78.7	78.8	81.8	80.1	79.5	79.2
August	73.0	76.0	74.7	76.6	75.5	78.1	74.0	78.1	75.6	79.0	77.7	79.8	73.5	77.1	73.9	77.9	76.7	79.5	75.2	78.2
September	67.0	66.5	69.1	67.4	69.7	69.4	68.0	68.3	69.6	69.5	71.5	70.9	68.2	68.2	68.9	69.3	71.6	71.1	69.5	69.1
October	52.7	55.0	54.4	56.1	56.2	58.0	54.0	57.3	55.2	58.6	56.9	60.0	54.8	57.9	55.6	59.1	57.7	60.8	55.5	58.3
November	42.8	40.3	44.6	41.2	46.5	43.4	44.1	41.8	45.9	43.2	47.1	45.1	45.6	42.7	46.5	44.5	48.1	46.6	45.9	43.4
December	32.3	31.3	33.5	32.2	34.3	34.5	30.6	31.0	32.5	32.6	34.2	35.0	29.9	31.4	31.7	33.6	34.7	36.5	32.9	33.4
Annual	53.3	52.6	55.2	53.5	57.0	55.7	54.6	53.9	56.3	55.2	58.3	57.0	55.1	54.0	55.8	55.5	58.1	57.6	56.2	55.2

* Long-time weather average, 1941-1970.

KANSAS PRECIPITATION, 1981

Upper Figure—1981 Total Lower Figure—1941-70 Average



CROP PRODUCTION, DISPOSITION AND VALUE, 1975-81

Crop and Year	Production	Farm disposition		Value	
		Feed and seed	Sold	Production	Sales (cash receipts)
	(000 bushels)			(000 dollars)	
Winter Wheat					
1975	350,900	11,229	339,671	1,200,078	1,161,675
1976	339,000	14,238	324,762	878,010	841,134
1977	344,850	16,208	328,642	772,464	736,158
1978	300,000	11,400	288,600	867,000	834,054
1979	410,400	11,902	398,498	1,526,688	1,482,413
1980	420,000	12,180	407,820	1,587,600	1,541,560
1981	305,000	12,810	292,190	1,143,750	1,095,713
Sorghum for Grain					
1975	147,000	55,860	91,140	333,690	206,888
1976	165,000	66,000	99,000	306,900	184,140
1977	235,600	89,528	146,072	409,944	254,165
1978	196,860	68,901	127,959	391,751	254,638
1979	246,330	96,069	150,261	541,926	330,574
1980	149,640	61,352	88,288	435,452	256,918
1981	238,520	93,023	145,497	515,203	314,274
Corn for Grain					
1975	141,040	29,618	111,422	352,600	278,555
1976	171,840	51,552	120,288	364,301	255,011
1977	161,280	49,997	111,283	320,947	221,453
1978	153,000	45,900	107,100	359,550	251,685
1979	171,990	55,037	116,953	431,695	293,552
1980	110,920	33,276	77,644	368,254	257,778
1981	158,760	47,628	111,132	412,776	288,943
Soybeans					
1975	22,680	522	22,158	108,184	105,694
1976	12,975	545	12,430	84,597	81,044
1977	28,215	705	27,510	155,183	151,305
1978	26,820	617	26,203	178,085	173,988
1979	41,340	827	40,513	246,800	241,863
1980	23,925	598	23,327	180,634	176,119
1981	45,300	679	44,621	267,270	263,264
Oats					
1975	4,360	3,052	1,308	7,063	2,119
1976	8,400	6,132	2,268	13,020	3,515
1977	9,450	6,709	2,741	10,395	3,015
1978	4,095	2,744	1,351	5,733	1,891
1979	3,740	2,655	1,085	6,171	1,790
1980	4,560	3,466	1,094	8,892	2,133
1981	8,500	6,120	2,380	16,575	4,641
Barley					
1975	1,850	925	925	3,737	1,869
1976	2,170	1,172	998	4,340	1,996
1977	2,628	1,261	1,367	3,968	2,064
1978	2,310	1,178	1,132	3,927	1,924
1979	2,288	1,190	1,098	4,873	2,339
1980	2,091	1,087	1,004	4,809	2,309
1981	1,664	865	799	3,910	1,878
Rye					
1975	168	42	126	363	272
1976	136	38	98	286	206
1977	180	67	113	279	175
1978	315	85	230	567	414
1979	504	104	400	958	760
1980	210	63	147	504	353
1981	252	73	179	680	483
	(000 tons)				
All Hay					
1975	4,890	3,814	1,076	234,720	51,648
1976	4,685	3,607	1,078	248,305	57,134
1977	5,445	4,193	1,252	234,135	53,836
1978	4,720	3,540	1,180	212,400	53,100
1979	5,840	4,438	1,402	283,240	67,997
1980	4,102	3,118	984	254,324	61,008
1981	6,070	4,613	1,457	345,990	83,049

MONTHLY SALES BY FARMERS

Percent of Total

Crop Year	WHEAT											
	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
1974-75	12	13	7	15	12	5	6	7	5	6	7	5
1975-76	10	20	20	8	3	3	5	6	8	6	6	5
1976-77	10	21	15	10	6	4	7	8	6	5	5	3
1977-78	8	15	11	10	8	7	7	6	7	9	8	4
1978-79	9	11	9	10	10	6	5	9	8	7	9	7
1979-80	12	20	15	8	10	5	9	7	5	3	4	2
1980-81	7	25	10	12	10	6	5	9	4	4	5	3

Crop Year	ALL HAY											
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
1974-75	8	11	12	14	8	6	4	6	8	8	10	5
1975-76	6	10	13	13	7	6	9	7	11	8	7	3
1976-77	7	13	10	10	6	4	5	17	10	8	8	2
1977-78	8	11	11	11	7	5	6	12	10	8	8	3
1978-79	7	8	13	8	13	3	6	11	13	7	6	5
1979-80	5	10	13	9	8	4	10	13	8	6	9	5
1980-81	5	9	9	10	9	11	11	14	11	4	4	3

Crop Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
	CORN											
1974-75	5	16	14	9	12	9	6	7	7	5	5	5
1975-76	5	12	12	13	11	10	8	7	7	5	5	5
1976-77	5	8	14	17	10	11	10	6	5	5	4	5
1977-78	13	17	15	16	6	5	5	6	6	4	4	3
1978-79	7	10	15	9	10	5	7	6	9	9	7	6
1979-80	7	10	12	18	14	10	6	8	3	4	6	2
1980-81	9	16	12	10	14	12	5	3	6	3	6	4
	SORGHUM GRAIN											
1974-75	4	11	18	13	12	6	7	8	6	5	4	6
1975-76	6	14	16	14	12	7	7	6	5	4	4	5
1976-77	10	24	13	11	11	5	5	4	5	3	3	6
1977-78	14	18	20	11	6	6	6	6	4	3	3	3
1978-79	6	13	12	8	10	5	8	9	6	12	6	5
1979-80	3	18	15	17	11	11	4	6	4	5	4	2
1980-81	8	19	21	12	12	5	6	3	3	3	4	4
	SOYBEANS											
1974-75	3	17	11	10	13	10	12	5	5	4	6	4
1975-76	3	11	15	10	11	9	8	6	11	8	5	3
1976-77	7	36	18	9	6	9	6	4	2	1	1	1
1977-78	2	23	18	18	6	5	9	6	6	2	3	2
1978-79	8	21	8	9	10	12	9	4	7	8	2	2
1979-80	8	22	10	8	8	8	8	9	5	5	4	5
1980-81	10	32	11	3	5	4	5	6	5	6	6	7

STOCKS OF GRAIN BY QUARTERS, 1980-82

	1980			1981			1982		
	Farm stocks	Off farm stocks	Total stocks	Farm stocks	Off farm stocks	Total stocks	Farm stocks	Off farm stocks	Total stocks
	(000 bushels)								
Wheat									
October 1 (previous year)	98,496	332,542	431,038	117,600	408,544	526,144	73,200	351,778	424,978
January 1	73,872	258,235	332,107	79,800	310,980	390,780	57,950	271,018	328,968
April 1	57,456	164,871	222,327	50,400	216,087	266,487	45,750	180,038	225,788
June 1	32,832	136,984	169,816	42,000	160,801	202,801			
Oats									
October 1 (previous year)	3,366	1,079	4,445	2,918	1,351	4,269	4,675	3,240	7,915
January 1	2,244	738	2,982	2,371	1,212	3,583	4,080	2,133	6,213
April 1	1,421	988	2,409	1,322	791	2,113	2,550	1,567	4,117
June 1	1,197	1,094	2,291	1,049	616	1,665			
Barley									
October 1 (previous year)	1,075	573	1,648	1,255	420	1,675	998	422	1,420
January 1	824	347	1,171	836	326	1,162	516	379	895
April 1	572	433	1,005	481	171	652	416	198	614
June 1	343	708	1,051	314	140	454			
Rye									
October 1 (previous year)	252	[1]	[1]	116	[1]	[1]	151		151
January 1	141	[1]	[1]	71	[1]	[1]	88		88
April 1	106	[1]	[1]	55	[1]	[1]	78		78
June 1	76	[1]	[1]	32	[1]	[1]			
Corn									
January 1	67,076	68,688	135,764	32,167	54,978	87,145	53,978	63,730	117,708
April 1	42,998	48,218	91,216	17,747	42,408	60,155	39,690	49,305	88,995
June 1	29,238	37,248	66,486	8,874	27,725	36,599			
October 1	10,319	30,448	40,767	3,328	15,875	19,203			
Sorghum Grain									
January 1	76,362	154,297	230,659	40,403	119,597	160,000	83,482	145,862	229,344
April 1	46,803	93,145	139,948	28,432	77,642	106,074	35,778	123,336	159,114
June 1	29,560	60,641	90,201	14,964	28,678	43,642			
October 1	12,317	36,071	48,388	7,482	19,251	26,733			
Soybeans									
January 1	12,402	24,862	37,264	6,699	24,481	31,180	12,684	24,227	36,911
April 1	7,441	16,631	24,072	5,503	18,387	23,890	7,248	13,168	20,416
June 1	5,788	11,226	17,014	4,546	14,886	19,432			
September 1	2,894	4,622	7,516	3,110	4,324	7,434			

1. Not published to avoid disclosing individual operations.

PRODUCER OWNED GRAIN, JANUARY 1, 1980-82

	1980	1981	1982
	(000 bushels)		
Wheat	158,732	188,656	128,131
Soybeans	16,167	10,951	9,332

COMMERCIAL GRAIN STORAGE CAPACITY

	1974	1975	1976	1977	1978	1979	1980	1981	1982
	(000 bushels)								
January 1	782,000	782,000	780,000	780,000	830,000	846,000	844,000	848,000	842,000

CROP ACRES BY SIZE GROUPS, 1981 [1]

Acres	Wheat		Corn		Sorghum	
	Farms reporting	Acres reported	Farms reporting	Acres reported	Farms reporting	Acres reported
	percent		percent		percent	
Northwest						
1-99	16.3	2.8	35.9	8.6	63.7	26.4
100-249	33.0	16.6	34.0	24.0	27.0	37.3
250-599	36.9	41.8	22.4	34.9	8.1	26.7
600 or more	13.8	38.8	7.7	32.5	1.2	9.6
West Central						
1-99	13.6	1.9	29.8	6.0	57.0	20.6
100-249	26.8	10.5	36.0	22.4	30.2	35.8
250-599	36.5	33.1	24.5	35.2	10.7	28.9
600 or more	23.1	54.5	9.7	36.4	2.1	14.7
Southwest						
1-99	10.9	1.4	13.7	1.9	30.6	5.2
100-249	24.9	8.7	30.7	12.2	30.3	16.8
250-599	36.1	28.9	39.1	36.7	25.6	33.6
600 or more	28.1	61.0	16.5	49.2	13.5	44.4
North Central						
1-99	29.7	6.4	61.0	21.9	56.3	21.8
100-249	34.9	22.9	26.9	36.5	32.4	40.6
250-599	27.0	40.5	11.0	34.7	10.1	28.5
600 or more	8.4	30.2	1.1	6.9	1.2	9.1
Central						
1-99	25.2	5.7	77.5	35.8	63.4	27.1
100-249	35.7	23.1	16.2	31.6	28.2	41.9
250-599	31.5	45.7	5.6	25.4	7.7	25.8
600 or more	7.6	25.5	.7	7.2	.7	5.2
South Central						
1-99	18.6	2.6	50.5	13.6	55.4	19.3
100-249	28.1	12.7	29.0	28.3	30.3	36.8
250-599	34.3	36.4	17.0	38.6	13.0	36.1
600 or more	19.0	48.3	3.5	19.5	1.3	7.8
Northeast						
1-99	72.0	34.1	70.2	28.2	65.8	29.8
100-249	21.8	38.0	21.2	33.7	26.5	41.1
250-599	5.7	23.1	7.6	29.9	7.0	23.8
600 or more	.5	4.8	1.0	8.2	.7	5.3
East Central						
1-99	68.3	28.4	75.6	34.3	72.1	34.3
100-249	22.9	35.6	18.8	34.6	21.7	38.4
250-599	7.9	28.5	4.6	20.0	5.8	23.6
600 or more	.9	7.5	1.0	11.1	.4	3.7
Southeast						
1-99	55.7	16.4	82.6	45.4	68.6	28.4
100-249	25.9	27.6	14.3	32.9	23.4	36.9
250-599	15.2	37.8	2.9	16.1	7.1	24.3
600 or more	3.2	18.2	.2	5.6	.9	10.4
State						
1-99	34.8	6.1	61.2	16.7	60.2	21.5
100-249	28.6	17.5	23.1	25.0	27.7	34.6
250-599	25.5	36.4	12.2	31.8	10.1	29.1
600 or more	11.1	40.0	3.5	26.5	2.0	14.8

1. Based on Annual State Farm Census reports.

TOTAL ACRES AVAILABLE FOR IRRIGATION [1]

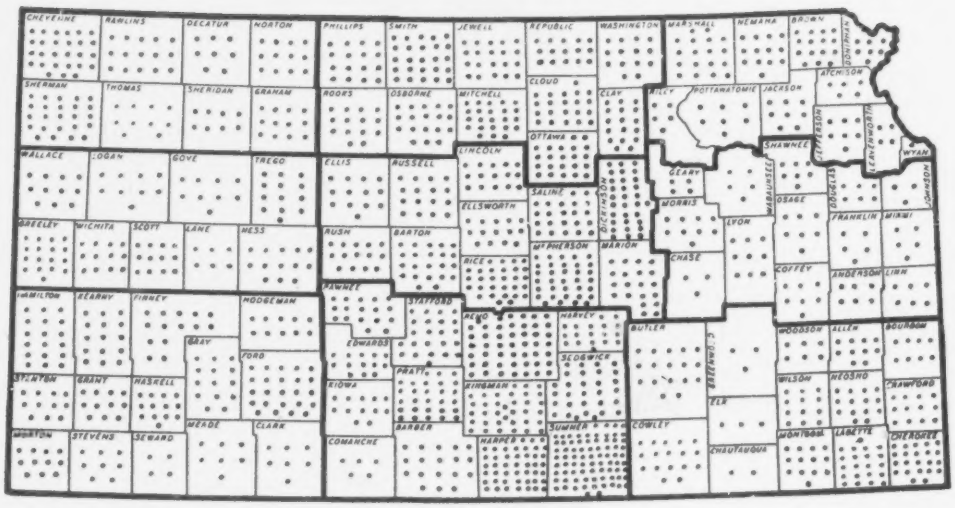
County	Acres 1980	Acres 1981
Northwest District:		
Cheyenne	59,000	62,000
Decatur	14,000	16,000
Graham	19,400	21,200
Norton	10,800	10,000
Rawlins	23,000	23,000
Sheridan	75,800	75,800
Sherman	117,000	120,000
Thomas	95,000	95,000
District total	414,000	423,000
West Central District:		
Gove	23,000	23,000
Greeley	30,000	33,000
Lane	25,000	29,000
Logan	16,000	16,000
Ness	12,000	12,000
Scott	90,000	90,000
Trego	7,000	7,000
Wallace	80,000	87,000
Wichita	125,000	125,000
District total	408,000	422,000
Southwest District:		
Clark	9,000	9,000
Finney	263,000	269,200
Ford	92,000	95,000
Grant	150,000	150,000
Gray	227,000	227,000
Hamilton	33,000	33,000
Haskell	238,000	238,000
Hodgeman	25,000	25,000
Kearny	119,000	120,100
Meade	120,000	120,000
Morton	65,000	59,000
Seward	102,000	106,000
Stanton	175,000	175,700
Stevens	126,000	126,000
District total	1,744,000	1,753,000
North Central District:		
Clay	14,000	14,000
Cloud	13,500	13,000
Jewell	12,200	13,600
Mitchell	5,400	5,400
Osborne	15,000	14,800
Ottawa	4,000	3,500
Phillips	6,200	6,500
Republic	44,500	44,000
Rooks	4,600	4,200
Smith	10,000	10,000
Washington	9,600	11,000
District total	139,000	140,000
Central District:		
Barton	35,500	35,200
Dickinson	3,500	3,500
Ellis	8,000	8,000
Ellsworth	1,700	1,700
Lincoln	2,000	2,000
McPherson	28,500	27,000
Marion	2,600	2,600
Rice	17,100	17,100
Rush	16,000	16,700
Russell	1,200	1,200
Saline	8,900	7,000
District total	125,000	122,000

County	Acres 1980	Acres 1981
South Central District:		
Barber	3,200	4,000
Comanche	8,000	7,300
Edwards	75,000	76,000
Harper	2,000	1,500
Harvey	18,000	18,600
Kingman	11,900	12,000
Kiowa	48,000	51,000
Pawnee	65,000	64,000
Pratt	54,000	55,000
Reno	24,000	27,000
Sedgwick	24,400	25,000
Stafford	56,000	61,000
Sumner	4,500	2,600
District total	394,000	405,000
Northeast District:		
Atchison	500	500
Brown	500	500
Doniphan	2,200	5,400
Jackson	1,000	500
Jefferson	2,300	2,200
Leavenworth	200	200
Marshall	2,800	2,000
Nemaha	500	800
Pottawatomie	10,000	9,200
Riley	3,700	3,500
Wyandotte	300	200
District total	24,000	25,000
East Central District:		
Anderson	1,700	1,700
Chase	1,000	1,000
Coffey	1,000	1,000
Douglas	1,300	2,100
Franklin	6,000	6,500
Geary	2,000	2,200
Johnson	1,700	1,500
Linn	100	400
Lyon	1,300	900
Miami	1,200	800
Morris	1,500	900
Osage	900	900
Shawnee	14,100	16,900
Wabaunsee	6,200	6,200
District total	40,000	43,000
Southeast District:		
Allen	1,500	1,500
Bourbon	1,800	1,800
Butler	1,700	1,500
Chautauqua	200	200
Cherokee	1,000	900
Cowley	2,000	2,000
Crawford	2,000	2,200
Elk	500	1,000
Greenwood	1,500	1,800
Labette	2,000	2,000
Montgomery	2,400	2,400
Neosho	1,300	1,300
Wilson	2,700	2,000
Woodson	400	400
District total	21,000	21,000
State	3,309,000	3,354,000

1. Represents total acres that could be irrigated if conditions warrant.

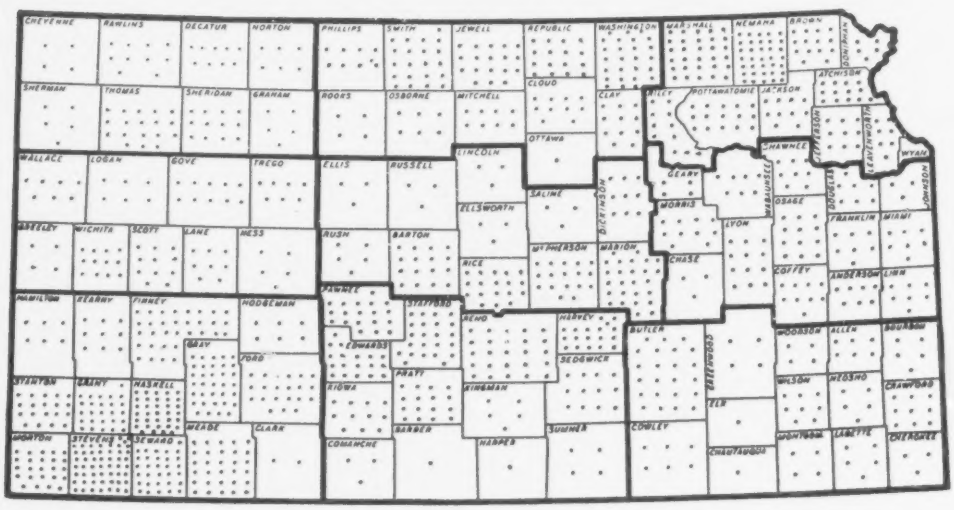
WHEAT PRODUCTION, 1981

1 Dot=200,000 Bushels



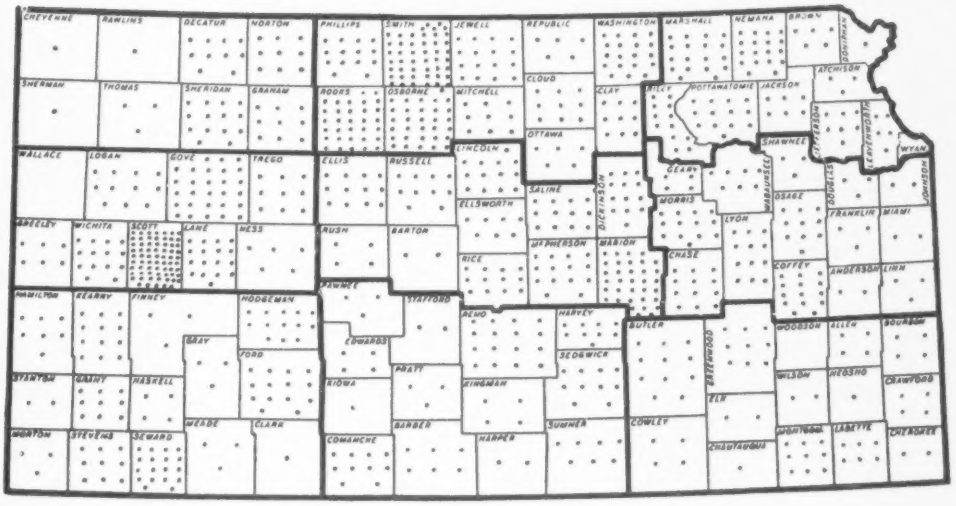
SORGHUM GRAIN PRODUCTION, 1981

1 Dot=200,000 Bushels



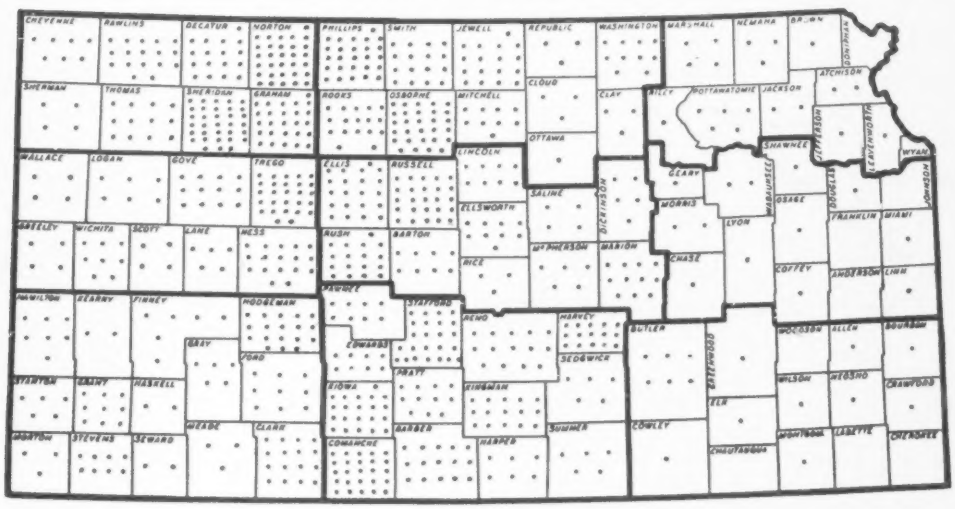
SORGHUM SILAGE PRODUCTION, 1981

1 Dot=4,000 Tons



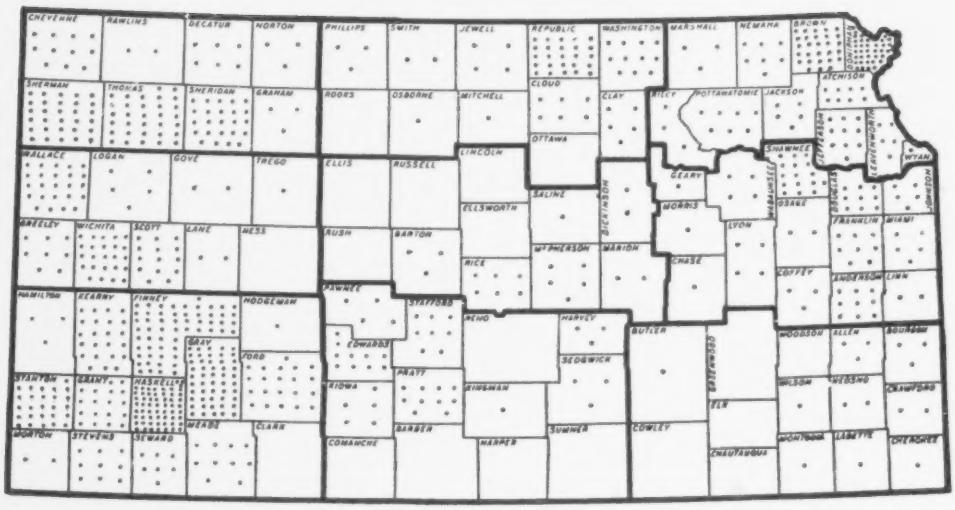
SORGHUM FORAGE PRODUCTION, 1981

1 Dot=1,500 Tons



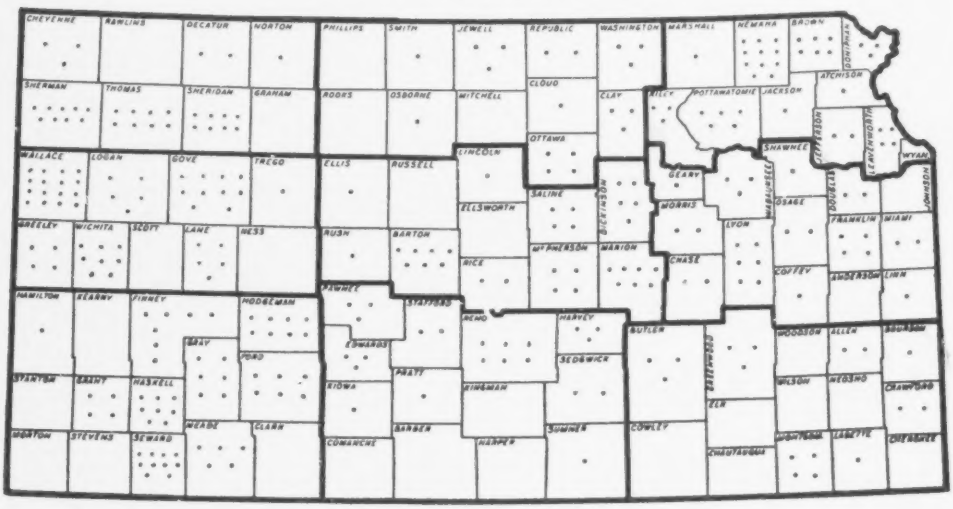
CORN GRAIN PRODUCTION, 1981

1 Dot=200,000 Bushels



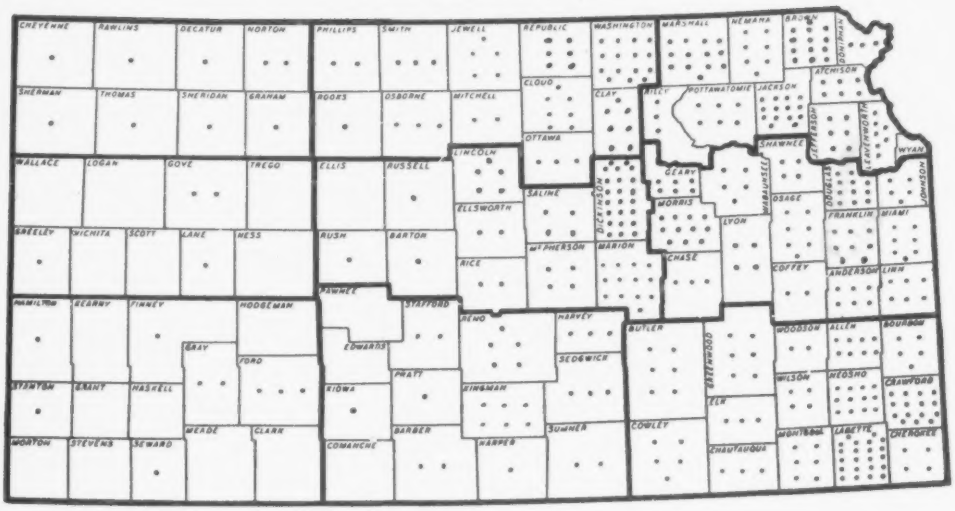
CORN SILAGE PRODUCTION, 1981

1 Dot=10,000 Tons



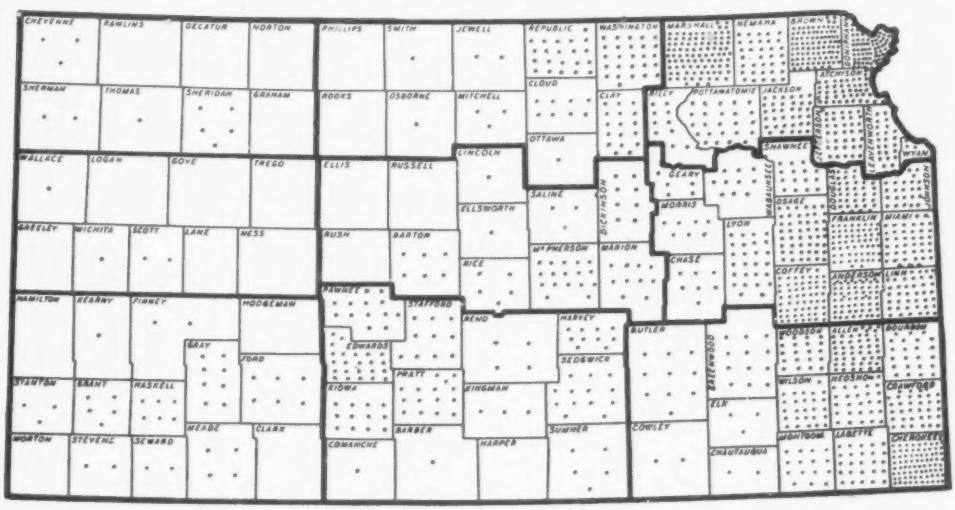
OATS PRODUCTION, 1981

1 Dot=20,000 Bushels



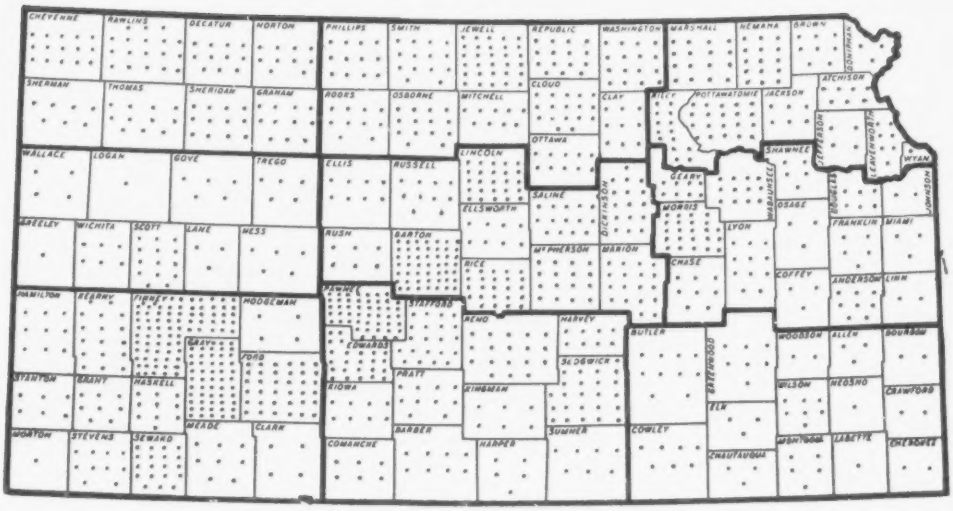
SOYBEANS PRODUCTION, 1981

1 Dot=30,000 Bushels



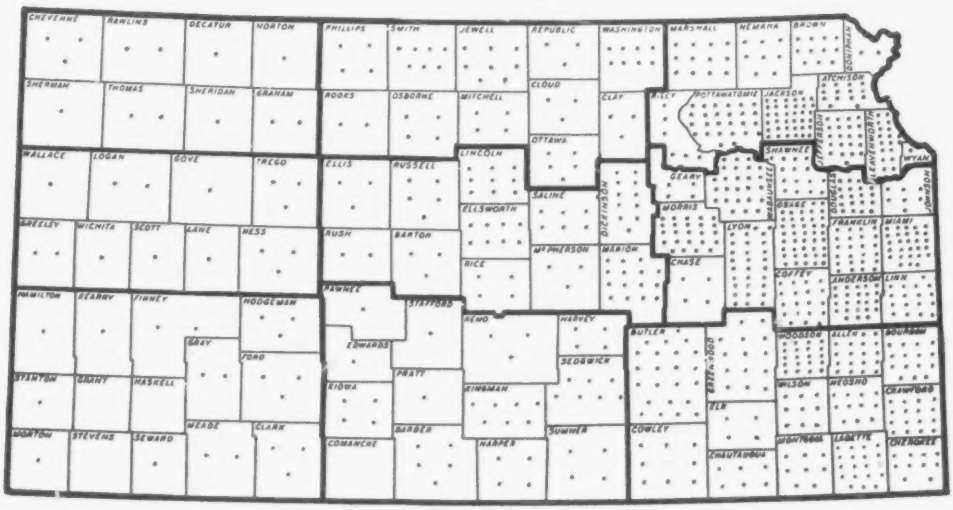
ALFALFA HAY PRODUCTION, 1981

1 Dot=3,000 Tons



ALL OTHER HAY PRODUCTION, 1981

1 Dot=3,000 Tons



KANSAS WHEAT

BY ROBERT L. VOSSEN

Kansas farmers produced a 305 million bushel wheat crop in 1981, a decrease of 27 percent from the 1980 record wheat production. While seeded acres increased eight percent in 1981 to 14.0 million acres, harvested acres, at 12.2 million acres, were up only two percent. Abandonment of 1.8 million acres accounted for 12.9 percent of the acreage planted, compared with 7.7 percent in 1980. Temperatures were unusually mild and allowed stands to develop two to three weeks ahead of schedule in the spring of 1981. A freeze in the northern and western areas of the state on May 9, 10 and 11 caught stands in the critical bloom stage and caused heavy losses to the crop.

Yield per harvested acre, at 25.0 bushels, was 10 bushels under the 1980 yield and reached its lowest average since 1967. Irrigated yields averaged 29.3 bushels per acre, compared with 44.4 in 1980. Yields on summer fallow land, at 21.2 bushels per acre, compared with 36.4 bushels the previous year. Yields on continuous cropped wheat, at 27.1 bushels per acre, compared with 32.7 bushels per acre a year earlier. Value of wheat production, at $1.14 billion, was down 28 percent from 1980, mostly due to the smaller production. The 1981 wheat price averaged $3.75 per bushel, compared with $3.78 for the 1980 crop season and $3.72 for 1979.

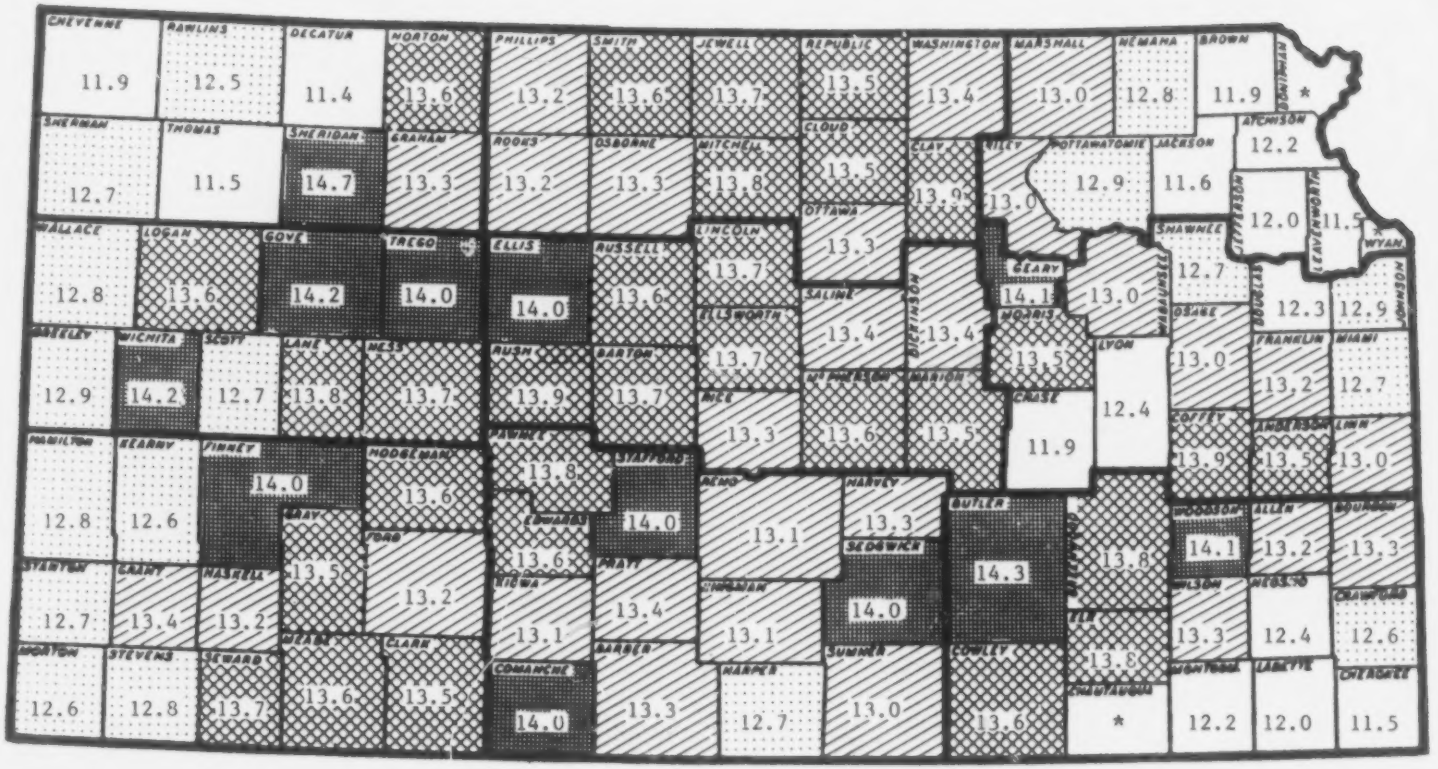
Sumner County retained its ranking as the top wheat producing county in Kansas in 1981 with a crop of 15.7 million bushels. Reno County regained second place with 9.7 million bushels, followed by perenially third place Harper County with 9.0 million bushels. Kingman, with 7.0 million bushels, moved into fourth place after dropping out of the top 10 counties in 1980 and was followed by McPherson County in fifth place with 6.8 million bushels. Cheyenne County was the top producer of summer fallow wheat with 5.0 million bushels, and for continuous cropped wheat Sumner led with 14.7 million bushels. Haskell County was the top producer of irrigated wheat with 2.2 million bushels. Brown County had the state's top yield at 47.0 bushels per acre.

Quality tests of the 1981 wheat crop established protein content at 13.2 percent, a level not reached since 1967. Test weight averaged 60.5 pounds per bushel, compared with 61.2 pounds a year earlier and the 10-year average of 61.4. Moisture content, affected by wet weather during most of the harvest, jumped to 12.2 percent, compared with 10.5 percent a year earlier. Wheat grading U.S. No. 1 in 1981 was 51 percent, an increase of 15 percentage points over the preceding year while wheat grading No. 2, at 37 percent, was down 17 points from a year earlier. All wheat varieties seeded classified by gluten strength showed 16.7 percent of the acreage as strong, 38.2 percent as medium to strong and 36.8 percent as medium.

NEWTON CONTINUES AS MOST POPULAR VARIETY FOR 1982 CROP

Newton continued its rapid rise as the most popular variety of wheat grown in Kansas, comprising 41.1 percent of the wheat acreage, accounting for 5.8 million acres. A relatively new variety developed by Dr. Elmer Heyne of Kansas State University, Newton was seeded on only one-tenth of one percent of the wheat acreage in 1978. Gains were shown in all crop reporting districts and it led all other varieties in all districts except west central and southwest. Larned nosed out Eagle by one percentage point to hold second place with 11.2 percent of the acreage. Larned also came on the scene in 1978 and has held its current popularity for the last three years. Virtually all of this variety is grown in the western two-thirds of the state. Eagle was a close third place contender, and was grown mostly in the western six districts and exceeded Larned in both the northwest and southwest districts. Scout, including Scout 66, lost some ground but still held fourth place with 6.1 percent of the acreage.

WHEAT PROTEIN CONTENT-1981



DISTRIBUTION OF WINTER WHEAT VARIETIES

Variety	1982 Crop, by District									
	Northwest	West Central	Southwest	North Central	Central	South Central	Northeast	East Central	Southeast	State
	Percent of Seeded Acreage									
Newton	27.7	16.9	21.2	50.4	56.5	50.5	60.0	70.4	56.0	41.1
Larned	16.9	24.0	18.3	9.2	7.9	7.0	.1	.....	.....	11.2
Eagle	18.0	23.0	22.0	5.0	4.9	3.7	.3	.....	.....	10.2
Scout [1]	7.2	14.2	15.1	2.4	3.1	1.0	2.4	.3	.....	6.1
Vona	5.5	1.9	5.1	10.9	3.9	7.0	1.9	1.8	4.2	5.5
Centurk	7.1	.2	.3	1.4	4.2	2.1	5.9	3.1	2.7	2.5
Sage	3.4	4.4	5.0	2.2	2.4	.7	.....	.1	.....	2.5
Tam 101	.....	.....	1.8	1.4	.8	7.4	.1	.2	1.5	2.5
Rocky	3.0	2.8	1.3	2.8	3.8	1.2	7.0	2.8	1.3	2.2
Triumph [2]	.....	.....	.1	.2	1.3	4.3	1.3	1.1	9.0	1.9
PL145	.1	.1	.7	.....	1.8	3.7	3.8	4.2	5.4	1.8
Tam 105	1.8	3.4	2.0	2.4	1.0	.8	1.1	.4	1.0	1.6
Wings	1.0	1.0	.8	4.2	1.1	1.1	4.1	1.2	2.2	1.6
Trison	.....	.....	.....	.8	.8	2.8	.....	.5	1.9	.9
Baca	.....	1.1	2.4	.....	.....	.....	.....	.....	.....	.6
Buckskin	4.0	.5	.1	.....	.7	.3	1.4	1.0	.....	.6
Plainsman V	.....	.3	.....	.....	.....	.9	.....	.....	1.8	.4
Satanta	.5	.....	.5	.1	.7	.8	.....	.....	.4	.4
Bennett	.7	.4	.....	2.4	.....	.....	.2	.....	.1	.3
Century II	.2	.....	.1	.1	.3	.9	.2	.9	.5	.3
Chanute	.....	.....	.....	.....	.....	.4	1.0	.7	.9	.2
Danne	.....	.....	.3	.....	.1	.8	.....	.....	.2	.2
Lindon	.1	.4	.....	.3	.3	.....	.9	.....	1.0	.2
Parker [3]	.....	.....	.....	.4	.5	.....	.7	2.1	.7	.2
HR 915A	.2	1.4	.....	.....	.4	.2	.4	.9	.3	.2
Cheney	.....	.2	.....	.....	.7	.1	.....	.....	.....	.1
Gage	.....	.4	.1	.3	.2	.1	2.0	1.2	.....	.1
Lancota	.4	.3	.....	.2	.1	.....	.4	.....	.....	.1
McNair [4,5]	.....	.....	.....	.....	.....	.....	.....	1.2	2.9	.1
S 76 [5]	.....	.....	.....	.....	.....	.....	.2	1.8	.9	.1
Tut	.....	.....	.2	.3	.1	.1	.....	.....	.....	.1
Other	2.2	3.1	2.6	2.6	2.4	2.1	4.6	4.1	5.1	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Variety	1975	1976	1977	1978	1979	1980	1981	1982
	Percent of Seeded Acreage							
Newton	.....	.....	.....	.1	2.8	17.5	34.2	41.1
Larned	.....	.....	.....	2.8	8.4	11.1	12.0	11.2
Eagle	22.6	20.1	19.9	23.0	21.1	15.7	11.3	10.2
Scout [1]	33.2	25.2	21.7	19.6	15.6	12.5	9.2	6.1
Vona	.....	.....	.....	.....	.8	2.9	6.7	5.5
Centurk	9.8	9.8	11.9	10.0	8.7	5.9	3.0	2.5
Sage	1.9	10.1	14.7	14.0	12.7	8.8	5.7	2.5
Tam 101	.8	2.4	3.0	4.1	4.9	4.8	3.0	2.5
Rocky	.....	.....	.....	.....	.....	.1	.8	2.2
Triumph [2]	8.2	7.9	6.3	5.8	6.5	5.1	2.7	1.9
PL145	.....	.....	.....	.....	.....	.....	.1	1.8
Tam 105	.....	.....	.....	.....	.....	.....	.....	1.6
Wings	.....	.....	.....	.....	.....	.8	1.8	1.6
Trison	.3	.7	.9	2.0	1.8	1.8	1.1	.9
Baca	.....	.....	.4	.2	.3	.2	.3	.6
Buckskin	.2	1.0	1.5	2.7	2.2	1.3	1.1	.6
Plainsman V	.....	.....	.....	.1	.1	.2	.5	.4
Satanta	2.7	3.5	2.9	2.2	1.7	1.0	.5	.4
Bennett	.....	.....	.....	.....	.....	.....	.2	.3
Century II	.....	.....	.2	.4	.5	.5	.4	.3
Chanute	2.0	1.9	1.5	1.1	.8	.5	.2	.2
Danne	1.1	.6	.7	1.0	.4	.2	.1	.2
Lindon	.....	.....	.....	.....	.....	.2	.1	.2
Parker [3]	6.4	5.0	3.0	1.7	1.4	1.3	.6	.2
HR 915A	.....	.....	.....	.....	.....	.....	.....	.2
Gage	2.2	2.4	3.0	2.0	1.2	1.0	.3	.1
Lancota	.....	.....	.....	.7	1.1	.2	.1	.1
S76 [5]	.....	.....	.....	.....	.....	.4	.5	.1
Other	8.6	9.4	8.4	6.5	7.0	6.0	3.5	4.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1. Includes Scout and Scout 66. 2. Includes Triumph and improved strains. 3. Includes Parker and Parker 76. 4. Includes McNair 1002 amd 1003. 5. SRW Varieties.

WHEAT, 1980

County	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District:					
Cheyenne	163,000	156,100	42.5	6,627,800	23,862,100
Decatur	136,000	129,900	42.4	5,509,500	19,835,900
Graham	138,000	132,300	37.5	4,960,100	17,857,900
Norton	136,000	126,100	38.7	4,880,000	17,569,500
Rawlins	170,000	160,700	40.5	6,503,200	23,413,500
Sheridan	126,000	120,700	38.9	4,691,100	16,889,400
Sherman	211,000	195,000	39.8	7,752,600	27,911,700
Thomas	260,000	249,200	44.5	11,095,700	39,948,000
District total	1,340,000	1,270,000	41.0	52,020,000	187,288,000
West Central District:					
Gove	151,000	142,000	40.4	5,731,700	21,035,000
Greeley	205,000	164,300	30.1	4,943,200	18,141,200
Lane	150,000	141,700	38.2	5,406,400	19,841,100
Logan	190,000	179,500	37.2	6,685,700	24,536,100
Ness	197,000	188,600	39.2	7,389,300	27,118,200
Scott	163,000	155,200	41.2	6,389,200	23,447,900
Trego	133,000	127,000	34.7	4,404,000	16,162,400
Wallace	113,000	91,400	34.5	3,153,700	11,573,900
Wichita	148,000	130,300	36.0	4,686,800	17,200,200
District total	1,450,000	1,320,000	37.0	48,790,000	179,056,000
Southwest District:					
Clark	103,000	84,900	23.8	2,023,500	7,546,800
Finney	282,000	262,100	35.1	9,189,300	34,272,200
Ford	239,000	211,400	27.4	5,801,400	21,636,900
Grant	105,000	99,500	39.3	3,906,300	14,568,900
Gray	188,000	173,500	35.5	6,167,200	23,001,100
Hamilton	205,000	190,800	31.8	6,059,400	22,599,100
Haskell	126,000	113,300	39.5	4,471,200	16,675,800
Hodgeman	143,000	126,800	32.7	4,146,100	15,463,300
Kearny	168,000	157,700	31.1	4,898,300	18,268,700
Meade	155,000	135,700	27.3	3,708,600	13,831,600
Morton	115,000	103,500	34.2	3,534,700	13,183,000
Seward	99,000	81,000	31.7	2,566,800	9,573,100
Stanton	169,000	161,300	37.4	6,039,700	22,525,600
Stevens	103,000	98,500	36.4	3,587,500	13,379,900
District total	2,200,000	2,000,000	33.1	66,100,000	246,526,000
North Central District:					
Clay	117,000	107,800	32.4	3,492,200	13,302,300
Cloud	163,000	157,700	31.8	5,012,900	19,094,900
Jewell	147,000	136,200	41.7	5,684,200	21,652,000
Mitchell	194,000	186,300	40.9	7,610,400	28,989,300
Osborne	154,000	146,600	35.0	5,126,300	19,526,900
Ottawa	162,000	156,500	34.4	5,378,900	20,489,100
Phillips	114,000	108,900	44.4	4,838,900	18,432,100
Republic	117,000	108,900	38.3	4,168,000	15,876,600
Rooks	129,000	122,600	38.4	4,702,900	17,914,100
Smith	132,000	125,700	48.1	6,051,200	23,050,000
Washington	116,000	107,800	36.2	3,897,100	14,844,700
District total	1,545,000	1,465,000	38.2	55,963,000	213,172,000
Central District:					
Barton	246,000	229,400	28.4	6,521,100	25,034,600
Dickinson	199,000	191,100	31.8	6,072,700	23,313,200
Ellis	142,000	133,800	33.5	4,481,000	17,202,600
Ellsworth	126,000	121,800	32.1	3,914,400	15,027,400
Lincoln	144,000	139,200	38.1	5,304,100	20,362,500
McPherson	260,000	245,400	35.2	8,636,900	33,157,300
Marion	166,000	154,900	29.8	4,614,200	17,714,000
Rice	208,000	198,200	33.3	6,603,400	25,350,500
Rush	170,000	162,600	34.6	5,628,200	21,606,700
Russell	139,000	132,500	35.3	4,678,000	17,958,900
Saline	175,000	166,100	32.6	5,421,000	20,811,300
District total	1,975,000	1,875,000	33.0	61,875,000	237,539,000

WHEAT, 1980—*Concluded*

County	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
South Central District:					
Barber	215,000	187,800	27.5	5,157,300	19,798,900
Comanche	118,000	94,600	22.8	2,157,800	8,283,800
Edwards	118,000	108,600	28.8	3,133,100	12,028,000
Harper	315,000	296,000	33.0	9,772,800	37,517,800
Harvey	146,000	132,700	32.5	4,312,600	16,556,100
Kingman	250,000	212,100	27.3	5,785,700	22,211,300
Kiowa	109,000	88,000	32.1	2,824,300	10,842,500
Pawnee	190,000	171,400	33.8	5,785,200	22,209,400
Pratt	201,000	161,600	25.1	4,053,000	15,559,500
Reno	341,000	284,100	25.6	7,278,900	27,943,700
Sedgwick	262,000	240,500	33.2	7,988,300	30,667,100
Stafford	181,000	146,800	30.5	4,478,800	17,194,100
Sumner	504,000	470,800	32.1	15,122,200	58,053,800
District total	2,950,000	2,595,000	30.0	77,850,000	298,866,000
Northeast District:					
Atchison	16,400	15,700	33.1	519,800	2,083,400
Brown	48,000	46,400	48.8	2,264,100	9,074,700
Doniphan	19,000	18,300	47.8	874,900	3,506,700
Jackson	28,900	27,700	38.8	1,075,500	4,310,700
Jefferson	18,600	16,200	37.2	603,000	2,416,900
Leavenworth	17,000	15,800	34.4	543,200	2,177,200
Marshall	101,000	94,800	37.6	3,564,600	14,287,300
Nemaha	50,000	48,100	37.4	1,798,100	7,207,000
Pottawatomie	29,900	28,200	38.9	1,096,600	4,395,300
Riley	34,400	32,100	32.6	1,048,000	4,200,500
Wyandotte	1,800	1,700	39.5	67,200	269,300
District total	365,000	345,000	39.0	13,455,000	53,929,000
East Central District:					
Anderson	36,000	35,000	42.6	1,491,400	5,859,000
Chase	28,000	27,500	34.3	942,000	3,700,600
Coffey	38,900	38,100	36.2	1,377,700	5,412,300
Douglas	20,600	17,600	34.9	614,800	2,415,200
Franklin	25,000	23,800	37.3	887,700	3,487,300
Geary	28,000	26,600	38.3	1,019,500	4,005,100
Johnson	12,000	11,300	35.6	402,400	1,580,800
Linn	26,000	25,400	43.1	1,093,900	4,297,400
Lyon	39,900	38,500	41.4	1,595,600	6,268,300
Miami	18,300	17,900	39.7	710,400	2,790,800
Morris	65,000	62,800	33.8	2,120,100	8,329,000
Osage	36,000	35,300	38.1	1,345,100	5,284,200
Shawnee	28,300	27,600	40.0	1,104,300	4,338,200
Wabaunsee	23,000	22,600	38.7	875,100	3,437,800
District total	425,000	410,000	38.0	15,580,000	61,206,000
Southeast District:					
Allen	37,000	36,200	40.5	1,466,400	5,687,300
Bourbon	23,000	22,300	35.5	792,200	3,072,500
Butler	100,000	92,000	33.2	3,057,300	11,857,400
Chautauqua	18,000	16,900	44.4	749,800	2,908,000
Cherokee	94,000	91,100	42.0	3,826,400	14,840,200
Cowley	157,000	153,000	40.7	6,224,200	24,139,600
Crawford	37,000	35,300	37.2	1,313,500	5,094,300
Elk	20,000	18,600	35.5	661,000	2,563,600
Greenwood	21,000	20,100	39.2	788,400	3,057,700
Labette	72,000	70,200	37.9	2,658,600	10,311,100
Montgomery	60,000	57,500	41.7	2,397,300	9,297,600
Neosho	40,000	38,900	40.0	1,554,300	6,028,200
Wilson	49,000	47,900	42.7	2,043,600	7,925,900
Woodson	22,000	20,000	41.7	834,000	3,234,800
District total	750,000	720,000	39.4	28,367,000	110,018,000
State	13,000,000	12,000,000	35.0	420,000,000	1,587,600,000

WHEAT, 1981

County	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District:					
Cheyenne	170,000	166,100	32.6	5,416,400	19,262,100
Decatur	132,000	102,000	15.8	1,611,600	5,731,300
Graham	143,000	122,500	19.3	2,366,200	8,414,800
Norton	126,000	108,800	22.6	2,459,000	8,744,800
Rawlins	168,000	137,800	22.1	3,050,200	10,847,300
Sheridan	131,000	93,700	17.1	1,602,800	5,700,000
Sherman	225,000	207,100	23.6	4,892,800	17,400,100
Thomas	239,000	158,000	13.0	2,054,000	7,304,600
District total	1,334,000	1,096,000	21.4	23,453,000	83,405,000
West Central District:					
Gove	151,000	103,500	17.0	1,754,500	6,309,000
Greeley	207,000	194,600	17.9	3,492,100	12,557,100
Lane	145,000	97,400	12.5	1,217,500	4,378,000
Logan	190,000	123,500	15.0	1,852,500	6,661,300
Ness	195,000	165,600	16.3	2,696,300	9,695,500
Scott	179,000	122,400	20.3	2,483,100	8,928,900
Trego	132,000	128,100	19.7	2,527,300	9,087,800
Wallace	117,000	108,600	19.6	2,133,800	7,672,900
Wichita	160,000	147,300	16.7	2,464,900	8,863,500
District total	1,476,000	1,191,000	17.3	20,622,000	74,154,000
Southwest District:					
Clark	116,000	70,800	20.8	1,473,800	5,328,800
Finney	255,000	182,400	15.2	2,772,500	10,024,500
Ford	247,000	217,500	22.0	4,784,800	17,300,400
Grant	110,000	89,000	2. .5	2,269,500	8,205,800
Gray	191,000	141,200	19.8	2,793,200	10,099,400
Hamilton	207,000	182,200	20.0	3,644,000	13,175,600
Haskell	134,000	86,300	30.7	2,650,500	9,583,400
Hodgeman	147,000	116,600	17.9	2,089,100	7,553,500
Kearny	176,000	158,400	18.6	2,947,200	10,656,200
Meade	158,000	7:,200	18.8	1,339,200	4,842,100
Morton	120,000	101,500	21.2	2,151,800	7,780,200
Seward	106,000	47,700	18.5	882,500	3,190,800
Stanton	175,000	120,300	17.5	2,104,100	7,607,800
Stevens	106,000	88,900	18.6	1,656,800	5,990,500
District total	2,248,000	1,674,000	20.0	33,559,000	121,339,000
North Central District:					
Clay	133,000	123,900	28.2	3,498,800	13,170,500
Cloud	180,000	166,300	24.7	4,112,700	15,481,400
Jewell	167,000	157,400	25.8	4,053,700	15,259,300
Mitchell	207,000	195,700	23.7	4,631,400	17,433,900
Osborne	154,000	144,700	24.8	3,582,900	13,487,000
Ottawa	185,000	173,100	25.6	4,430,000	16,675,800
Phillips	115,000	111,300	29.2	3,249,000	12,230,100
Republic	131,000	123,000	23.8	2,923,300	11,004,100
Rooks	134,000	126,600	22.6	2,866,400	10,789,900
Smith	140,000	135,900	37.0	5,024,100	18,912,100
Washington	133,000	113,100	25.5	2,888,700	10,873,900
District total	1,679,000	1,571,000	26.3	41,261,000	155,318,000
Central District:					
Barton	240,000	208,200	21.5	4,471,200	17,052,300
Dickinson	220,000	207,600	29.9	6,213,900	23,698,600
Ellis	144,000	135,700	18.8	2,546,900	9,713,400
Ellsworth	130,000	124,800	22.8	2,840,900	10,834,600
Lincoln	147,000	129,300	22.6	2,924,900	11,155,000
McPherson	273,000	252,000	26.8	6,766,000	25,804,100
Marion	186,000	168,200	23.7	3,989,100	15,213,600
Rice	193,000	182,300	31.9	5,820,700	22,199,000
Rush	165,000	153,600	18.5	2,839,200	10,828,100
Russell	140,000	133,000	23.7	3,157,000	12,040,200
Saline	185,000	179,300	24.7	4,434,200	16,911,100
District total	2,023,000	1,874,000	24.5	46,004,000	175,450,000

WHEAT, 1981—*Concluded*

County	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
South Central District:					
Barber	190,000	157,700	23.0	3,629,700	13,735,100
Comanche	125,000	62,500	15.7	979,100	3,705,000
Edwards	137,000	124,000	21.4	2,657,300	10,055,400
Harper	320,000	310,000	29.1	9,033,700	34,184,200
Harvey	157,000	140,800	2. .3	3,559,500	13,469,400
Kingman	255,000	244,000	28.6	6,986,800	26,438,600
Kiowa	111,000	102,000	23.5	2,398,400	9,075,700
Pawnee	192,000	171,800	20.0	3,431,700	12,985,800
Pratt	204,000	193,300	29.2	5,636,900	21,330,400
Reno	342,000	318,900	30.3	9,671,400	36,597,300
Sedgwick	285,000	258,700	23.1	5,976,000	22,613,600
Stafford	185,000	173,300	26.0	4,505,800	17,050,300
Sumner	516,000	502,000	31.2	15,660,700	59,261,200
District total	3,019,000	2,759,000	26.9	74,127,000	280,502,000
Northeast District:					
Atchison	33,000	32,000	32.6	1,043,200	4,102,600
Brown	65,000	62,600	47.0	2,942,200	11,570,700
Doniphan	35,000	34,200	39.3	1,344,100	5,285,900
Jackson	45,000	41,200	38.1	1,570,300	6,175,500
Jefferson	36,000	33,800	38.5	1,301,300	5,117,600
Leavenworth	26,000	23,400	35.8	837,500	3,293,600
Marshall	132,000	121,900	29.2	3,558,300	13,993,700
Nemaha	69,000	63,000	41.8	2,631,100	10,347,300
Pottawatomie	39,000	36,800	36.3	1,334,700	5,248,900
Riley	38,000	34,200	32.0	1,094,400	4,303,900
Wyandotte	4,000	3,900	39.2	152,900	601,300
District total	522,000	487,000	36.6	17,810,000	70,041,000
East Central District:					
Anderson	59,000	47,200	26.4	1,246,700	4,791,700
Chase	28,000	24,400	20.9	508,900	1,956,000
Coffey	64,000	55,500	26.0	1,443,000	5,546,200
Douglas	34,000	31,500	35.5	1,119,800	4,304,000
Franklin	43,000	37,400	27.0	1,009,100	3,878,500
Geary	33,000	29,700	28.3	839,300	3,225,900
Johnson	22,000	18,300	35.0	640,500	2,461,800
Linn	48,000	39,100	28.3	1,106,900	4,254,400
Lyon	64,000	58,000	31.2	1,810,900	6,960,000
Miami	34,000	28,600	36.8	1,053,800	4,050,300
Morris	72,000	61,200	28.0	1,713,600	6,586,300
Osage	52,000	47,100	29.4	1,385,100	5,323,700
Shawnee	40,000	37,000	36.4	1,348,000	5,181,100
Wabaunsee	35,000	33,000	32.4	1,070,400	4,114,100
District total	628,000	548,000	29.7	16,296,000	62,634,000
Southeast District:					
Allen	66,000	63,800	32.6	2,081,800	7,898,300
Bourbon	50,000	48,000	32.0	1,536,000	5,827,600
Butler	130,000	119,900	28.2	3,381,200	12,828,300
Chautauqua	17,000	16,200	28.5	461,700	1,751,700
Cherokee	115,000	112,700	39.9	4,492,000	17,042,500
Cowley	170,000	149,700	22.5	3,371,000	12,789,600
Crawford	75,000	68,400	35.4	2,424,600	9,198,900
Elk	27,000	23,300	23.0	536,800	2,036,600
Greenwood	31,000	26,400	23.3	615,700	2,336,000
Labette	112,000	106,300	39.0	4,145,700	15,728,800
Montgomery	76,000	72,400	34.8	2,523,100	9,572,600
Neosho	80,000	76,800	36.1	2,775,300	10,529,500
Wilson	82,000	79,100	29.8	2,354,800	8,934,100
Woodson	40,000	37,000	31.6	1,168,300	4,432,500
District total	1,071,000	1,000,000	31.9	31,868,000	120,907,000
State	14,000,000	12,200,000	25.0	305,000,000	1,413,750,000

WHEAT BY CROPPING PRACTICES, 1980

County	Grown on Irrigated Land [1]				Grown on Summer Fallow [1]			
	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels
Northwest District:								
Cheyenne	4,000	4,000	55.4	221,500	158,300	151,400	42.2	6,386,500
Decatur	400	400	47.0	18,800	135,300	129,200	42.4	5,479,600
Graham	2,200	2,200	43.6	96,000	126,900	121,500	37.9	4,606,100
Norton	400	400	40.0	16,000	124,400	115,000	38.9	4,471,000
Rawlins	400	400	47.0	18,800	167,200	158,200	40.5	6,411,900
Sheridan	500	500	47.0	23,500	111,000	106,400	39.1	4,164,200
Sherman	24,100	23,100	44.5	1,027,100	186,200	171,300	39.2	6,708,700
Thomas	5,000	5,000	50.7	253,300	250,700	240,000	44.4	10,666,000
District total	37,000	36,000	46.5	1,675,000	1,260,000	1,193,000	41.0	48,894,000
West Central Dist.:								
Gove	1,200	1,000	40.4	40,400	138,600	130,800	40.6	7,316,100
Greeley	2,200	2,000	37.1	74,200	202,800	162,300	30.0	4,869,000
Lane	5,400	5,300	48.0	254,400	144,600	136,400	37.8	5,152,000
Logan	600	600	40.3	24,200	187,000	176,500	37.3	6,577,500
Ness	2,000	2,000	41.5	82,900	183,200	175,800	39.2	6,882,200
Scott	24,900	24,000	48.0	1,152,000	136,600	129,700	40.0	5,189,200
Trego	300	300	40.3	12,100	130,600	124,600	34.8	4,337,300
Wallace	14,200	11,400	40.0	456,000	98,800	80,000	33.7	2,697,700
Wichita	36,200	31,400	44.5	1,397,800	111,800	98,900	33.3	3,289,000
District total	87,000	78,000	44.8	3,494,000	1,334,000	1,215,000	36.5	44,310,000
Southwest District:								
Clark	1,000	1,000	40.0	40,000	73,500	61,100	25.0	1,527,500
Finney	45,000	45,000	49.0	2,205,000	233,500	214,000	32.2	6,891,900
Ford	10,100	8,700	39.4	342,500	216,500	192,400	27.1	5,207,300
Grant	44,100	43,300	48.0	2,078,300	51,500	48,300	32.6	1,574,200
Gray	55,000	51,000	41.1	2,095,800	128,100	118,200	33.6	3,968,200
Hamilton	8,800	8,400	37.0	310,800	195,200	181,500	31.5	5,725,400
Haskell	55,000	55,000	46.9	2,577,000	59,600	48,400	33.0	1,597,200
Hodgeman	8,300	7,600	38.0	288,800	121,400	108,400	32.6	3,535,100
Kearny	29,500	25,900	36.0	932,400	138,500	131,800	30.1	3,965,900
Meade	16,800	16,800	41.4	694,900	122,900	106,600	26.0	2,771,600
Morton	25,000	25,000	41.5	1,038,500	81,000	70,600	32.0	2,259,200
Seward	33,400	28,500	45.6	1,298,300	32,500	26,000	26.0	676,000
Stanton	42,000	41,800	48.1	2,010,500	111,900	105,800	34.5	3,646,300
Stevens	33,000	33,000	42.7	1,408,200	56,900	54,900	34.5	1,894,200
District total	407,000	391,000	44.3	17,321,000	1,623,000	1,468,000	30.8	45,240,000
North Central Dist.:								
Clay					31,700	29,500	36.3	1,069,500
Cloud					27,200	26,100	38.6	1,008,200
Jewell	400	400	49.0	19,600	33,900	31,500	49.0	1,543,500
Mitchell					90,000	86,100	44.4	3,826,000
Osborne	500	500	50.4	25,200	90,500	86,000	38.4	3,302,200
Ottawa					20,100	19,300	37.0	714,100
Phillips					89,300	85,400	46.3	3,950,600
Republic	1,700	1,700	46.1	78,300	38,700	37,100	44.6	1,656,000
Rooks	400	400	44.8	17,900	119,300	113,400	38.7	4,392,700
Smith					105,000	100,100	49.7	4,971,700
Washington					18,300	17,500	46.0	804,500
District total	3,000	3,000	47.0	141,000	664,000	632,000	43.1	27,239,000
Central District:								
Barton	5,000	5,000	39.1	195,500	99,300	91,600	31.8	2,910,000
Dickinson	300	300	44.7	13,400	24,300	23,300	31.7	738,600
Ellis	400	400	44.8	17,900	104,700	98,400	37.2	3,658,100
Ellsworth	300	300	44.7	13,400	50,500	48,500	34.1	1,651,800
Lincoln					29,200	28,000	44.3	1,239,100
McPherson	500	500	44.8	22,400	44,900	41,600	40.8	1,697,100
Marion	400	400	44.8	17,900	18,300	17,500	38.3	669,500
Rice	100	100	55.0	5,500	63,400	60,600	34.0	2,060,400
Rush	2,000	2,000	43.0	86,000	135,800	129,900	37.5	4,866,800
Russell					84,300	81,100	39.5	3,200,600
Saline	1,000	1,000	49.0	49,000	16,300	15,500	46.0	713,000
District total	10,000	10,000	42.1	421,000	671,000	636,000	36.8	23,405,000

WHEAT BY CROPPING PRACTICES, 1980—*Concluded*

County	Grown on Irrigated Land [1]				Grown on Summer Fallow [1]			
	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels
South Central Dist.:								
Barber	1,000	1,000	43.3	43,300	7,400	7,200	28.2	203,200
Comanche	1,900	1,600	43.3	69,200	17,700	14,200	25.0	355,000
Edwards	5,700	5,500	40.9	225,200	86,800	80,800	29.9	2,417,300
Harper					25,000	24,100	34.0	819,400
Harvey	500	400	43.3	17,300	19,000	17,600	38.0	668,800
Kingman	2,500	2,000	47.2	94,300	20,000	19,200	32.4	621,500
Kiowa	9,600	7,700	45.0	346,500	70,000	56,000	34.7	1,943,200
Pawnee	17,000	15,600	43.1	671,900	132,700	118,600	34.1	4,045,100
Pratt	9,400	8,200	41.3	338,900	71,200	57,000	26.3	1,497,900
Reno	1,000	1,000	40.0	40,000	45,300	36,300	30.3	1,098,900
Sedgwick					40,400	37,000	39.0	1,443,000
Stafford	11,400	11,000	46.7	513,400	62,800	50,300	33.2	1,670,000
Sumner					73,700	69,700	38.5	2,679,700
District total	60,000	54,000	43.7	2,360,000	672,000	588,000	33.1	19,463,000
Northeast District:								
Atchison								
Brown								
Doniphan								
Jackson								
Jefferson								
Leavenworth								
Marshall								
Nemaha								
Pottawatomie								
Riley								
Wyandotte								
District total								
East Central Dist.:								
Anderson								
Chase								
Coffey								
Douglas								
Franklin								
Geary								
Johnson								
Linn								
Lyon								
Miami								
Morris								
Osage								
Shawnee								
Wabaunsee								
District total								
Southeast District:								
Allen								
Bourbon								
Butler								
Chautauqua								
Cherokee								
Cowley								
Crawford								
Elk								
Greenwood								
Labette								
Montgomery								
Neosho								
Wilson								
Woodson								
District total								
State	604,000	572,000	44.4	25,412,000	6,224,000	5,732,000	36.4	208,551,000

1. No estimates of acres grown on irrigated land and summer fallow have been made for the eastern part of the state where these practices are relatively unimportant.

WHEAT BY CROPPING PRACTICES, 1980

County	Grown on Continuous Cropped Land			
	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels
Northwest District:				
Cheyenne	700	700	28.3	19,800
Decatur	300	300	37.0	11,100
Graham	8,900	8,600	30.0	258,000
Norton	11,200	10,700	36.7	393,000
Rawlins	2,400	2,100	34.5	72,500
Sheridan	14,500	13,800	36.5	503,400
Sherman	700	600	28.0	16,800
Thomas	4,300	4,200	42.0	176,400
District total	43,000	41,000	35.4	1,451,000
West Central Dist.:				
Gove	11,200	10,200	36.8	375,200
Greeley				
Lane				
Logan	2,400	2,400	35.0	84,000
Ness	11,800	10,800	39.3	424,200
Scott	1,500	1,500	32.0	48,000
Trego	2,100	2,100	26.0	54,600
Wallace				
Wichita				
District total	29,000	27,000	36.5	986,000
Southwest District:				
Clark	28,500	22,800	20.0	456,000
Finney	3,500	3,100	29.8	92,400
Ford	12,400	10,300	24.4	251,600
Grant	9,400	7,900	32.1	253,800
Gray	4,900	4,300	24.0	103,200
Hamilton	1,000	900	25.8	23,200
Haskell	11,400	9,900	30.0	297,000
Hodgeman	13,300	10,800	29.8	322,200
Kearny				
Meade	15,300	12,300	19.7	242,100
Morton	9,000	7,900	30.0	237,000
Seward	33,100	26,500	22.4	592,500
Stanton	15,100	13,700	28.0	382,900
Stevens	13,100	10,600	26.9	285,100
District total	170,000	141,000	25.1	3,539,000
North Central Dist.:				
Clay	85,300	78,300	30.9	2,422,700
Cloud	135,800	131,600	30.4	4,004,700
Jewell	112,700	104,300	39.5	4,121,100
Mitchell	104,000	100,200	37.8	3,784,400
Osborne	63,000	60,100	29.9	1,798,900
Ottawa	141,900	137,200	34.0	4,664,800
Phillips	24,700	23,500	37.8	888,300
Republic	76,600	70,100	34.7	2,433,700
Rooks	9,300	8,800	33.2	292,300
Smith	27,000	25,600	42.2	1,079,500
Washington	97,700	90,300	34.3	3,092,600
District total	878,000	830,000	34.4	28,583,000
Central District:				
Barton	141,700	132,800	25.7	3,415,600
Dickinson	174,400	167,500	31.8	5,320,700
Ellis	36,900	35,000	23.0	805,000
Ellsworth	75,200	73,000	30.8	2,249,200
Lincoln	114,800	111,200	36.6	4,065,000
McPherson	214,600	203,300	34.0	6,917,400
Marion	147,300	137,000	28.7	3,926,800
Rice	144,500	137,500	33.0	4,537,500
Rush	32,200	30,700	22.0	675,400
Russell	54,700	51,400	28.7	1,477,400
Saline	157,700	149,600	31.1	4,659,000
District total	1,294,000	1,229,000	31.0	38,049,000

WHEAT BY CROPPING PRACTICES, 1980—*Concluded*

County	Grown on Continuous Cropped Land			
	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels
South Central Dist.:				
Barber	206,600	179,600	27.3	4,910,800
Comanche	98,400	78,800	22.0	1,733,600
Edwards	25,500	22,300	22.0	490,600
Harper	290,000	271,900	32.9	8,953,400
Harvey	126,500	114,700	31.6	3,626,500
Kingman	227,500	190,900	26.6	5,069,900
Kiowa	29,400	24,300	22.0	534,600
Pawnee	40,300	37,200	28.7	1,068,200
Pratt	120,400	96,400	23.0	2,216,200
Reno	294,700	246,800	24.9	6,140,000
Sedgwick	221,600	203,500	32.2	6,545,300
Stafford	106,800	85,500	26.9	2,295,400
Sumner	430,300	401,100	31.0	12,442,500
District total	2,218,000	1,953,000	28.7	56,027,000
Northeast District:				
Atchison	16,400	15,700	33.1	519,800
Brown	48,000	46,400	48.8	2,264,100
Doniphan	19,000	18,300	47.8	874,900
Jackson	28,900	27,700	38.8	1,075,500
Jefferson	18,600	16,200	37.2	603,000
Leavenworth	17,000	15,800	34.4	543,200
Marshall	101,000	94,800	37.6	3,564,600
Nemaha	50,000	48,100	37.4	1,798,100
Pottawatomie	29,900	28,200	38.9	1,096,600
Riley	34,400	32,100	32.7	1,048,000
Wyandotte	1,800	1,700	39.5	67,200
District total	365,000	345,000	39.0	13,455,000
East Central Dist.:				
Anderson	36,000	35,000	42.6	1,491,400
Chase	28,000	27,500	34.3	942,000
Coffey	38,900	38,100	36.2	1,377,700
Douglas	20,600	17,600	34.9	614,800
Franklin	25,000	23,800	37.3	887,700
Geary	28,000	26,600	38.3	1,019,300
Johnson	12,000	11,300	35.6	402,400
Linn	26,000	25,400	43.1	1,093,900
Lyon	39,900	38,500	41.4	1,595,600
Miami	18,300	17,900	39.7	710,400
Morris	65,000	62,800	33.8	2,120,100
Osage	36,000	35,300	38.1	1,345,100
Shawnee	28,300	27,600	40.0	1,104,300
Wabaunsee	23,000	22,600	38.7	875,100
District total	425,000	410,000	38.0	15,580,000
Southeast District:				
Allen	37,000	36,200	40.5	1,466,400
Bourbon	23,000	22,300	35.5	792,200
Butler	100,000	92,000	33.2	3,057,300
Chautauqua	18,000	16,900	44.4	749,800
Cherokee	94,000	91,100	42.0	3,826,400
Cowley	157,000	153,000	40.7	6,224,200
Crawford	37,000	35,300	37.2	1,313,500
Elk	20,000	18,600	35.5	661,000
Greenwood	21,000	20,100	39.2	788,400
Labette	72,000	70,200	37.9	2,658,600
Montgomery	60,000	57,500	41.7	2,397,300
Neosho	40,000	38,900	40.0	1,554,300
Wilson	49,000	47,900	42.7	2,043,600
Woodson	22,000	20,000	41.7	834,000
District total	750,000	720,000	39.4	28,367,000
State	6,172,000	5,696,000	32.7	186,037,000

WHEAT BY CROPPING PRACTICES, 1981

County	Grown on Irrigated Land [1]				Grown on Summer Fallow [1]			
	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels
Northwest District:								
Cheyenne	7,500	7,300	45.0	328,500	156,500	153,000	32.8	5,014,400
Decatur					123,500	97,400	15.9	1,551,300
Graham	4,200	3,600	27.2	97,800	129,800	111,500	19.3	2,152,600
Norton	700	700	25.0	17,500	108,300	92,000	23.5	2,166,200
Rawlins	2,000	1,500	25.0	37,500	151,400	123,300	22.6	2,783,900
Sheridan	8,100	6,900	25.0	172,500	115,600	83,800	16.5	1,382,300
Sherman	27,500	26,400	38.4	1,013,400	197,000	180,300	21.5	3,872,500
Thomas	16,100	11,400	26.1	297,800	218,900	143,900	12.0	1,723,800
District total	66,100	57,800	34.0	1,965,000	1,201,000	985,200	21.0	20,647,000
West Central Dist.:								
Gove	1,800	1,800	32.1	57,700	144,400	97,000	16.8	1,627,100
Greeley	8,400	7,500	39.7	298,100	194,000	182,800	17.0	3,116,600
Lane	7,900	5,100	38.2	195,000	135,100	90,800	11.1	1,006,000
Logan	2,400	2,200	30.0	66,000	155,300	105,100	14.8	1,557,200
Ness	2,400	2,300	26.0	59,800	179,500	154,400	16.3	2,520,800
Scott	30,800	16,800	30.0	504,000	146,900	105,000	18.8	1,971,000
Trego	700	600	30.8	18,500	123,800	120,400	19.8	2,383,300
Wallace	20,000	17,600	32.8	576,600	96,000	90,200	17.1	1,544,400
Wichita	42,000	39,500	28.3	1,118,300	116,000	106,300	12.4	1,322,600
District total	116,400	93,400	31.0	2,894,000	1,291,000	1,052,000	16.2	17,049,000
Southwest District:								
Clark	3,400	2,400	35.0	84,000	66,600	47,000	20.5	961,800
Finney	80,000	59,600	23.2	1,385,400	168,000	118,100	11.3	1,335,300
Ford	28,000	27,500	29.2	802,700	203,900	180,200	21.5	3,874,300
Grant	51,000	45,500	30.8	1,401,900	58,300	42,900	20.0	858,000
Gray	74,000	66,600	24.5	1,634,500	108,000	68,800	15.5	1,065,900
Hamilton	13,000	12,100	26.0	314,600	193,800	169,900	19.6	3,326,300
Haskell	64,800	57,000	38.2	2,177,800	59,200	22,100	16.5	364,700
Hodgeman	7,600	6,800	30.0	204,000	108,100	85,900	17.2	1,479,200
Kearny	34,800	27,000	30.0	811,000	139,200	129,800	16.3	2,111,700
Meade	37,500	20,000	27.4	548,800	92,800	39,200	15.6	610,400
Morton	25,400	23,300	30.9	719,400	91,600	76,000	18.5	1,406,000
Seward	44,400	19,900	26.2	521,900	50,200	22,000	13.5	297,000
Stanton	70,000	58,300	20.2	1,180,100	100,000	59,000	15.0	885,000
Stevens	51,400	47,600	25.3	1,202,900	44,300	35,100	11.0	386,400
District total	585,000	473,600	27.4	12,989,000	1,484,000	1,096,000	17.3	18,962,000
North Central Dist.:								
Clay	1,500	1,500	25.0	37,500	11,800	11,600	33.3	386,000
Cloud	500	400	24.8	9,900	23,000	22,000	31.1	684,200
Jewell	700	600	24.7	14,800	33,700	33,200	39.0	1,294,800
Mitchell					37,100	36,500	36.6	1,334,300
Osborne	500	400	35.0	14,000	68,500	65,200	31.7	2,066,000
Ottawa					12,700	11,900	37.5	446,300
Phillips					74,100	72,100	34.7	2,504,200
Republic	1,700	1,400	25.0	35,000	12,800	12,500	34.7	434,000
Rooks					113,600	106,700	23.7	2,528,100
Smith					76,600	75,400	42.2	3,184,300
Washington	1,000	800	24.8	19,800	6,200	5,800	36.0	208,800
District total	5,900	5,100	25.7	131,000	470,100	452,900	33.3	15,071,000
Central District:								
Barton	10,500	10,000	32.0	320,100	74,200	61,900	27.0	1,671,300
Dickinson	300	300	29.3	8,800	18,400	17,700	36.7	649,600
Ellis	400	200	28.0	5,600	103,700	97,800	21.4	2,090,100
Ellsworth	400	400	26.0	10,400	42,400	41,300	29.3	1,210,000
Lincoln					27,300	25,700	31.7	814,500
McPherson	300	300	32.3	9,700	28,100	25,800	28.8	743,000
Marion					25,000	24,300	28.2	685,300
Rice	300	300	40.0	12,000	41,700	39,100	34.5	1,349,000
Rush	2,500	2,300	28.0	64,400	132,100	126,800	19.6	2,485,800
Russell					70,000	67,200	27.0	1,817,600
Saline	900	800	32.5	26,000	10,000	9,800	29.6	289,800
District total	15,600	14,600	31.3	457,000	572,900	537,400	25.7	13,806,000

WHEAT BY CROPPING PRACTICES, 1981—*Concluded*

County	Grown on Irrigated Land [1]				Grown on Summer Fallow [1]			
	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels
South Central Dist.:								
Barber	500	400	33.5	13,400	12,000	11,500	25.4	292,300
Comanche	3,500	2,400	33.7	80,800	31,900	19,000	17.4	330,100
Edwards	23,600	19,400	31.0	601,400	73,400	69,400	20.7	1,439,900
Harper					11,800	11,500	29.4	338,100
Harvey	2,500	2,300	40.0	92,000	3,300	3,000	31.0	93,000
Kingman	2,000	1,900	38.1	72,300	12,000	10,700	32.4	346,600
Kiowa	15,000	13,100	35.0	458,700	60,800	58,400	24.5	1,430,200
Pawnee	18,700	18,200	31.4	571,400	131,300	121,400	20.0	2,430,000
Pratt	16,000	13,900	40.0	556,000	62,500	57,000	32.0	1,824,000
Reno	1,500	1,500	30.0	45,000	30,000	29,100	37.2	1,083,100
Sedgwick	800	800	30.0	24,000	17,400	16,200	22.9	371,000
Stafford	18,900	16,600	35.0	581,000	46,600	44,100	30.4	1,340,600
Sumner					32,000	31,200	32.2	1,005,100
District total	103,000	90,500	34.2	3,096,000	525,000	482,500	25.5	12,324,000
Northeast District:								
Atchison								
Brown								
Doniphan								
Jackson								
Jefferson								
Leavenworth								
Marshall								
Nemaha								
Pottawatomie								
Riley								
Wyandotte								
District total								
East Central Dist.:								
Anderson								
Chase								
Coffey								
Douglas								
Franklin								
Geary								
Johnson								
Linn								
Lyon								
Miami								
Morris								
Osage								
Shawnee								
Wabaunsee								
District total								
Southeast District:								
Allen								
Bourbon								
Butler								
Chautauqua								
Cherokee								
Cowley								
Crawford								
Elk								
Greenwood								
Labette								
Montgomery								
Neosho								
Wilson								
Woodson								
District total								
State	892,000	735,000	29.3	21,532,000	5,544,000	4,606,000	21.2	97,859,000

1. No estimate of acres grown on irrigated land and summer fallow have been made for the eastern third of the state where these practices are relatively unimportant.

WHEAT BY CROPPING PRACTICES, 1981

County	Grown on Continuous Cropped Land			
	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels
Northwest District:				
Cheyenne	6,000	5,800	12.7	73,500
Decatur	8,500	4,600	13.1	60,300
Graham	9,000	7,400	15.6	115,800
Norton	17,000	16,100	17.1	275,300
Rawlins	14,600	13,000	17.6	228,800
Sheridan	7,300	3,000	16.0	48,000
Sherman	500	400	17.3	6,900
Thomas	4,000	2,700	12.0	32,400
District total	66,900	53,000	15.9	841,000
West Central Dist.:				
Gove	4,800	4,700	14.8	69,700
Greeley	4,600	4,300	18.0	77,400
Lane	2,000	1,500	11.0	16,500
Logan	32,300	16,200	14.2	229,300
Ness	13,100	8,900	13.0	115,700
Scott	1,300	600	13.5	8,100
Trego	7,500	7,100	17.7	125,500
Wallace	1,000	800	16.0	12,800
Wichita	2,000	1,500	16.0	24,000
District total	68,600	45,600	14.9	679,000
Southwest District:				
Clark	46,300	21,400	20.0	428,000
Finney	7,000	4,700	11.0	51,800
Ford	15,100	9,800	11.0	107,800
Grant	700	600	16.0	9,600
Gray	9,000	5,800	16.0	92,800
Hamilton	200	200	15.5	3,100
Haskell	10,000	7,200	15.0	108,000
Hodgeman	31,300	23,900	17.0	405,900
Kearny	2,000	1,600	15.3	24,500
Meade	27,700	12,000	15.0	180,000
Morton	3,000	2,200	12.0	26,400
Seward	11,400	5,800	11.0	63,600
Stanton	5,000	3,000	13.0	39,000
Stevens	10,300	6,200	10.9	67,500
District total	179,000	104,400	15.4	1,608,000
North Central Dist.:				
Clay	119,700	110,800	27.8	3,075,300
Cloud	156,500	143,900	23.8	3,418,600
Jewell	132,600	123,600	22.2	2,744,100
Mitchell	169,900	159,200	20.7	3,297,100
Osborne	85,000	79,100	19.0	1,502,900
Ottawa	172,300	161,200	24.7	3,983,700
Phillips	40,900	39,200	19.0	744,800
Republic	116,500	109,100	22.5	2,454,300
Rooks	20,400	19,900	17.0	338,300
Smith	63,400	60,500	30.4	1,839,800
Washington	125,800	106,500	25.0	2,660,100
District total	1,203,000	1,113,000	23.4	26,059,000
Central District:				
Barton	155,300	136,300	18.2	2,479,800
Dickinson	201,300	189,600	29.3	5,555,500
Ellis	39,900	37,700	12.0	451,200
Ellsworth	87,200	83,100	19.3	1,620,500
Lincoln	119,700	103,600	20.4	2,110,400
McPherson	244,600	225,900	26.6	6,013,300
Marion	161,000	143,900	23.0	3,303,800
Rice	151,000	142,900	31.2	4,459,700
Rush	30,400	24,500	11.8	289,000
Russell	70,000	65,800	20.4	1,339,400
Saline	174,100	168,700	24.4	4,118,400
District total	1,434,500	1,322,000	24.0	31,741,000

WHEAT BY CROPPING PRACTICES, 1981—*Concluded*

County	Grown on Continuous Cropped Land			
	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels
South Central Dist.:				
Barber	177,500	145,800	22.8	3,324,000
Comanche	89,600	41,100	13.8	568,200
Edwards	40,000	35,200	17.5	616,000
Harper	308,200	298,500	29.1	8,695,600
Harvey	151,200	135,500	24.9	3,374,500
Kingman	241,000	231,400	28.4	6,567,900
Kiowa	35,200	30,500	16.7	509,500
Pawnee	42,000	32,200	13.4	430,300
Pratt	125,500	122,400	26.6	3,256,900
Reno	310,500	288,300	29.6	8,543,300
Sedgwick	266,800	241,700	23.1	5,581,000
Stafford	119,500	112,600	23.0	2,584,200
Sumner	484,000	470,800	31.1	14,655,600
District total	2,391,000	2,186,000	26.9	58,707,000
Northeast District:				
Atchison	33,000	32,000	32.6	1,043,200
Brown	65,000	62,600	47.0	2,942,200
Doniphan	35,000	34,200	39.3	1,344,100
Jackson	45,000	41,200	38.1	1,570,300
Jefferson	36,000	33,800	38.5	1,301,300
Leavenworth	26,000	23,400	35.8	837,500
Marshall	132,000	121,900	29.2	3,558,300
Nemaha	69,000	63,000	41.8	2,631,100
Pottawatomie	39,000	36,800	36.3	1,334,700
Riley	38,000	34,200	32.0	1,094,400
Wyandotte	4,000	3,900	39.2	152,900
District total	522,000	487,000	36.6	17,810,000
East Central Dist.:				
Anderson	59,000	47,200	26.4	1,246,700
Chase	28,000	24,400	20.9	508,900
Coffey	64,000	55,500	26.0	1,443,000
Douglas	34,000	31,500	35.5	1,119,800
Franklin	43,000	37,400	27.0	1,009,100
Geary	33,000	29,700	28.3	839,300
Johnson	22,000	18,300	35.0	640,500
Linn	48,000	39,100	28.3	1,106,900
Lyon	64,000	58,000	31.2	1,810,900
Miami	34,000	28,600	36.8	1,053,800
Morris	72,000	61,200	28.0	1,713,600
Osage	52,000	47,100	29.4	1,385,100
Shawnee	40,000	37,000	36.4	1,348,000
Wabaunsee	35,000	33,000	32.4	1,070,400
District total	628,000	548,000	29.7	16,296,000
Southeast District:				
Allen	66,000	63,800	32.6	2,081,800
Bourbon	50,000	48,000	32.0	1,536,000
Butler	130,000	119,900	28.2	3,381,200
Chautauqua	17,000	16,200	28.5	461,700
Cherokee	115,000	112,700	39.9	4,492,000
Cowley	170,000	149,700	22.5	3,371,000
Crawford	75,000	68,400	35.4	2,424,600
Elk	27,000	23,300	23.0	536,800
Greenwood	31,000	26,400	23.3	615,700
Labette	112,000	106,300	39.0	4,145,700
Montgomery	76,000	72,400	34.8	2,523,100
Neosho	80,000	76,800	36.1	2,775,300
Wilson	82,000	79,100	29.8	2,354,800
Woodson	40,000	37,000	31.6	1,168,300
District total	1,071,000	1,000,000	31.9	31,868,000
State	7,564,000	6,859,000	27.1	185,609,000

SORGHUM, 1980

County	All Sorghum		Sorghum for Grain			
	Acres planted	Acres harvested	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District:						
Cheyenne	12,200	12,000	6,800	69.7	473,700	1,282,100
Decatur	34,800	34,200	23,400	38.0	888,700	2,405,400
Graham	29,200	29,100	13,900	33.1	459,600	1,244,000
Norton	36,200	35,500	24,100	39.6	954,100	2,582,400
Rawlins	25,300	25,300	15,500	63.1	978,200	2,647,700
Sheridan	31,900	31,400	15,200	60.5	919,800	2,489,600
Sherman	13,700	13,400	9,900	78.9	781,600	2,115,500
Thomas	28,700	28,200	18,900	57.6	1,087,800	2,944,300
District total	212,000	209,100	127,700	51.2	6,543,500	17,711,000
West Central District:						
Gove	42,500	41,800	19,700	52.6	1,037,200	2,900,600
Greeley	18,000	17,800	12,900	44.5	574,300	1,606,100
Lane	19,900	19,500	16,300	56.3	916,900	2,564,100
Logan	11,100	10,500	7,100	42.4	300,700	840,900
Ness	23,000	22,700	17,000	48.6	825,400	2,308,300
Scott	34,700	34,100	29,200	64.2	1,874,600	5,242,400
Trego	33,800	33,300	15,300	44.0	673,300	1,882,900
Wallace	16,200	15,900	11,000	84.5	929,100	2,598,300
Wichita	32,800	32,200	28,500	77.2	2,199,600	6,151,200
District total	232,000	227,800	157,000	59.4	9,331,100	26,094,800
Southwest District:						
Clark	15,000	14,000	5,000	39.8	199,100	583,900
Finney	68,000	66,900	59,400	70.6	4,193,200	12,298,300
Ford	50,000	50,000	42,300	74.7	3,160,300	9,268,900
Grant	76,000	75,000	70,300	56.9	4,000,100	11,732,000
Gray	47,000	46,100	43,200	67.8	2,927,700	8,586,700
Hamilton	22,000	21,700	11,600	56.2	651,700	1,911,400
Haskell	51,000	49,900	47,700	79.0	3,770,000	11,057,100
Hodgeman	23,000	22,800	17,000	60.8	1,032,800	3,029,100
Kearny	25,000	24,800	20,200	70.4	1,421,300	4,168,600
Meade	61,000	60,900	56,200	87.6	4,925,200	14,445,200
Morton	111,000	108,200	102,700	38.7	3,974,300	11,656,300
Seward	81,000	79,700	77,300	58.2	4,497,500	13,190,800
Stanton	50,000	49,400	47,900	65.8	3,152,700	9,246,600
Stevens	191,000	187,800	185,300	44.6	8,263,500	24,236,400
District total	871,000	857,200	786,100	58.7	46,169,400	135,411,300
North Central District:						
Clay	55,000	42,400	28,800	24.6	708,800	2,024,700
Cloud	53,000	27,000	20,200	24.3	491,000	1,402,500
Jewell	81,000	73,600	62,600	44.4	2,782,100	7,947,000
Mitchell	53,000	38,600	25,700	24.8	637,500	1,821,000
Osborne	36,800	36,000	20,200	42.7	862,900	2,464,800
Ottawa	20,000	5,800	2,600	23.0	59,700	170,500
Phillips	48,400	48,400	28,600	41.0	1,171,200	3,345,500
Republic	87,000	80,300	71,900	29.7	2,132,700	6,092,000
Rooks	36,800	36,800	18,500	27.9	515,700	1,473,100
Smith	74,000	73,800	53,000	59.0	3,126,200	8,929,900
Washington	121,000	103,900	92,600	26.8	2,478,500	7,079,700
District total	666,000	566,600	424,700	35.2	14,966,300	42,750,700
Central District:						
Barton	52,000	49,400	44,900	58.9	2,[illegible]2,400	7,732,700
Dickinson	70,000	51,800	36,500	19.6	717,200	2,098,800
Ellis	26,100	25,600	15,700	41.9	657,100	1,922,900
Ellsworth	27,500	25,900	20,200	27.3	551,400	1,613,600
Lincoln	26,700	22,600	16,300	27.2	443,900	1,299,000
McPherson	82,000	64,900	57,800	37.7	2,176,700	6,369,800
Marion	102,000	94,500	66,000	16.9	1,113,800	3,259,400
Rice	76,000	67,000	62,700	45.2	2,833,300	8,291,400
Rush	22,000	21,700	15,000	56.6	848,300	2,482,400
Russell	32,100	30,500	17,600	34.1	599,900	1,755,500
Saline	27,600	11,100	7,400	28.3	209,100	611,900
District total	544,000	465,000	360,100	35.5	12,793,100	37,437,400

SORGHUM, 1980—*Concluded*

County	All Sorghum		Sorghum for Grain			
	Acres planted	Acres harvested	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
South Central District:						
Barber	22,000	20,600	1,300	44.8	58,300	172,400
Comanche	27,300	25,000	7,700	36.3	279,300	825,700
Edwards	42,000	41,300	35,800	60.7	2,171,600	6,420,000
Harper	12,300	12,100	7,300	37.5	273,400	808,300
Harvey	81,000	74,900	65,400	27.0	1,764,200	5,215,600
Kingman	27,700	26,800	13,100	47.6	623,000	1,841,800
Kiowa	38,800	38,000	31,500	50.8	1,600,900	4,732,800
Pawnee	46,900	46,600	41,900	64.1	2,685,200	7,938,400
Pratt	56,000	55,000	50,700	46.6	2,362,700	6,984,900
Reno	111,000	107,600	94,800	53.6	5,084,900	15,032,600
Sedgwick	78,000	72,200	64,400	34.2	2,200,100	6,504,200
Stafford	68,000	63,700	56,900	60.7	3,454,600	10,213,000
Sumner	28,000	24,800	14,400	27.4	394,700	1,166,900
District total	639,000	608,600	485,200	47.3	22,952,900	67,856,600
Northeast District:						
Atchison	39,100	39,000	37,400	60.6	2,264,800	6,627,700
Brown	44,000	43,400	40,800	54.9	2,237,900	6,548,900
Doniphan	9,900	9,800	9,500	81.4	773,100	2,262,400
Jackson	36,800	36,400	34,500	33.8	1,165,700	3,411,300
Jefferson	25,900	25,500	24,600	51.7	1,270,900	3,719,100
Leavenworth	22,700	22,700	18,600	57.8	1,074,200	3,143,500
Marshall	120,000	118,100	111,700	27.8	3,099,800	9,071,200
Nemaha	108,000	107,200	97,300	41.1	4,002,200	11,712,000
Pottawatomie	49,000	48,400	46,700	42.4	1,981,400	5,798,300
Riley	38,300	36,300	31,100	24.9	773,800	2,264,400
Wyandotte	1,300	1,300	1,300	41.2	53,500	156,600
District total	495,000	488,100	453,500	41.2	18,697,300	54,715,400
East Central District:						
Anderson	22,400	21,000	18,400	25.0	460,200	1,323,700
Chase	15,700	15,300	13,200	18.1	238,400	685,700
Coffey	33,700	33,500	24,100	22.6	544,400	1,565,900
Douglas	25,900	25,400	24,500	45.1	1,105,700	3,180,500
Franklin	24,000	23,800	22,800	35.4	806,400	2,319,600
Geary	14,600	13,700	10,300	31.8	327,200	941,200
Johnson	12,900	12,800	12,800	46.1	590,000	1,697,100
Linn	28,200	28,000	24,800	21.8	541,200	1,556,700
Lyon	56,000	54,200	49,500	24.4	1,208,400	3,475,900
Miami	25,800	25,600	25,000	37.1	926,700	2,665,600
Morris	44,300	39,600	25,200	22.1	555,800	1,598,700
Osage	55,000	54,500	51,500	37.7	1,939,600	5,579,200
Shawnee	28,000	27,700	26,400	39.2	1,035,300	2,978,000
Wabaunsee	29,500	28,100	24,500	23.4	573,500	1,649,600
District total	416,000	403,200	353,000	30.7	10,852,800	31,217,400
Southeast District:						
Allen	28,000	27,400	26,200	23.3	609,700	1,850,400
Bourbon	26,700	24,500	21,800	18.6	404,900	1,228,900
Butler	88,000	79,500	66,800	22.7	1,514,900	4,597,700
Chautauqua	5,600	4,200	1,600	16.0	25,600	77,700
Cherokee	20,400	19,600	18,800	27.0	508,400	1,543,000
Cowley	31,700	29,100	25,900	33.4	865,100	2,625,600
Crawford	35,900	34,600	27,700	17.8	493,700	1,498,400
Elk	17,000	15,800	9,700	12.2	118,200	358,700
Greenwood	23,700	21,800	12,700	16.9	214,100	649,800
Labette	29,300	28,400	27,100	22.8	616,600	1,871,400
Montgomery	31,000	27,400	22,300	18.5	411,800	1,249,800
Neosho	32,700	28,800	26,500	24.2	641,400	1,946,600
Wilson	30,200	29,100	24,100	17.2	415,700	1,261,600
Woodson	24,800	24,200	21,500	23.0	493,500	1,497,800
District total	425,000	394,400	332,700	22.0	7,333,600	22,257,400
State	4,500,000	4,220,000	3,480,000	43.0	149,640,000	435,452,000

SORGHUM, 1981

County	All Sorghum		Sorghum for Grain			
	Acres planted	Acres harvested	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District:						
Cheyenne	13,500	13,300	10,500	77.1	809,600	1,611,100
Decatur	43,400	43,100	33,700	53.2	1,794,300	3,570,700
Graham	33,900	33,600	18,500	49.8	920,400	1,831,600
Norton	33,300	32,900	20,100	62.6	1,258,900	2,505,200
Rawlins	36,300	36,000	30,600	67.0	2,048,900	4,077,300
Sheridan	44,600	44,300	31,200	77.8	2,427,000	4,829,800
Sherman	16,000	15,900	13,200	81.1	1,070,000	2,129,300
Thomas	57,000	56,600	50,000	72.4	3,618,100	7,200,100
District total	278,000	275,700	207,800	67.1	13,947,200	27,755,100
West Central District:						
Gove	48,300	48,000	35,500	58.5	2,075,900	4,338,600
Greeley	18,300	18,200	14,400	56.5	814,000	1,701,300
Lane	33,600	32,800	26,300	58.0	1,524,100	3,185,400
Logan	30,700	30,400	25,100	44.9	1,125,900	2,353,100
Ness	25,100	24,900	17,400	53.4	928,300	1,940,200
Scott	48,700	48,300	30,200	76.1	2,297,800	4,802,400
Trego	37,600	36,700	23,800	55.1	1,310,400	2,738,700
Wallace	20,400	20,300	18,200	79.5	1,445,100	3,022,400
Wichita	37,300	37,100	29,400	79.7	2,342,800	4,896,500
District total	300,000	296,700	220,300	62.9	13,865,300	28,978,600
Southwest District:						
Clark	14,900	14,800	6,700	47.2	316,400	692,900
Finney	86,000	85,700	82,700	77.9	6,446,000	14,116,800
Ford	62,000	61,800	54,800	78.4	4,298,900	9,414,600
Grant	83,000	80,900	75,800	67.8	5,141,900	11,260,800
Gray	82,000	81,100	78,900	87.3	6,891,300	15,092,000
Hamilton	25,000	24,900	21,200	54.3	1,150,800	2,520,300
Haskell	71,000	70,000	67,900	99.3	6,744,500	14,770,500
Hodgeman	28,400	28,100	18,800	65.5	1,230,900	2,695,700
Kearny	30,700	30,500	26,000	67.5	1,754,100	3,841,500
Meade	76,000	75,500	72,400	83.3	6,028,500	13,202,500
Morton	112,000	111,200	107,000	44.3	4,740,200	10,381,100
Seward	103,000	100,800	95,000	64.7	6,145,400	13,458,500
Stanton	67,000	66,600	62,600	61.1	3,821,800	8,369,800
Stevens	197,000	195,400	191,000	54.1	10,331,100	22,625,400
District total	1,038,000	1,027,300	960,800	67.7	65,041,800	142,442,400
North Central District:						
Clay	34,300	33,300	29,900	70.5	2,108,900	4,449,800
Cloud	33,800	31,000	27,600	69.6	1,921,400	4,054,200
Jewell	77,000	69,300	59,600	61.8	3,683,700	7,772,700
Mitchell	36,900	31,400	26,400	63.3	1,671,600	3,527,100
Osborne	35,500	34,800	19,700	61.2	1,206,400	2,545,500
Ottawa	10,600	7,700	5,500	50.7	279,000	588,700
Phillips	46,900	45,800	33,100	48.5	1,604,700	3,385,900
Republic	59,000	50,500	47,900	64.8	3,102,600	6,546,500
Rooks	38,000	37,600	19,400	45.1	875,500	1,847,300
Smith	80,000	78,900	60,200	70.8	4,263,500	8,996,000
Washington	91,000	82,500	73,900	71.5	5,284,300	11,150,000
District total	543,000	502,800	403,200	64.5	26,001,600	54,863,700
Central District:						
Barton	55,000	52,000	47,700	66.7	3,179,900	6,900,400
Dickinson	38,400	36,100	30,100	61.7	1,858,300	4,032,500
Ellis	25,200	24,300	13,000	51.8	672,900	1,460,200
Ellsworth	20,500	18,700	12,700	51.5	654,100	1,419,400
Lincoln	18,700	18,100	10,700	59.4	636,000	1,380,100
McPherson	55,000	54,100	49,400	70.6	3,488,800	7,570,700
Marion	82,000	81,100	68,300	75.7	5,169,400	11,217,800
Rice	59,000	57,500	52,900	66.5	3,517,400	7,632,800
Rush	26,200	25,700	19,000	56.5	1,072,700	2,327,800
Russell	26,500	25,400	12,900	52.5	677,300	1,469,700
Saline	16,500	15,200	10,900	54.3	592,400	1,285,500
District total	423,000	408,200	327,600	65.7	21,519,200	46,696,900

SORGHUM, 1981—*Concluded*

County	All Sorghum		Sorghum for Grain			
	Acres planted	Acres harvested	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
South Central District:						
Barber	14,300	14,200	4,600	43.7	200,900	440,000
Comanche	27,900	27,700	14,100	37.0	522,000	1,143,200
Edwards	58,000	57,300	53,600	67.7	3,630,500	7,950,800
Harper	8,000	7,700	4,700	46.6	219,200	480,100
Harvey	65,000	64,500	57,600	63.2	3,637,500	7,966,200
Kingman	25,000	24,400	14,700	61.4	902,800	1,977,100
Kiowa	39,100	38,800	30,000	72.0	2,161,400	4,733,500
Pawnee	55,000	54,000	49,500	75.4	3,732,400	8,174,000
Pratt	57,000	55,800	49,400	66.2	3,270,500	7,162,400
Reno	110,000	107,600	98,500	51.7	5,094,600	11,157,200
Sedgwick	51,000	48,700	43,600	53.0	2,312,800	5,065,100
Stafford	80,000	79,500	67,300	68.9	4,638,800	10,159,000
Sumner	25,700	24,600	19,400	44.8	868,400	1,901,800
District total	616,000	604,800	507,000	61.5	31,191,800	68,310,400
Northeast District:						
Atchison	40,800	40,100	38,500	67.3	2,590,500	5,750,900
Brown	33,600	33,300	31,200	89.5	2,792,900	6,200,300
Doniphan	10,800	10,600	10,100	93.8	947,000	2,102,400
Jackson	29,200	28,700	26,400	72.6	1,916,900	4,255,500
Jefferson	30,100	29,500	26,700	68.4	1,825,400	4,052,400
Leavenworth	23,700	22,100	20,300	64.4	1,307,600	2,902,900
Marshall	88,000	83,900	77,700	77.7	6,035,200	13,398,200
Nemaha	92,000	91,400	85,100	83.2	7,083,900	15,726,400
Pottawatomie	41,700	41,400	35,600	81.8	2,911,300	6,463,100
Riley	30,100	29,900	26,300	81.8	2,151,400	4,776,100
Wyandotte	1,000	1,000	900	78.2	70,400	156,300
District total	421,000	411,900	378,800	78.2	29,632,500	65,784,500
East Central District:						
Anderson	18,700	18,300	17,700	77.3	1,367,400	2,926,200
Chase	13,600	13,100	9,300	73.5	683,600	1,462,900
Coffey	27,600	27,400	23,100	78.1	1,803,800	3,860,100
Douglas	19,900	19,400	18,100	72.9	1,319,600	2,824,000
Franklin	17,900	17,700	16,600	78.4	1,301,500	2,785,200
Geary	12,800	12,500	11,000	79.7	876,400	1,875,500
Johnson	9,000	8,900	8,300	75.9	629,600	1,347,400
Linn	24,500	23,400	22,300	62.7	1,397,200	2,990,000
Lyon	44,900	42,300	38,400	64.1	2,461,000	5,266,600
Miami	20,500	20,000	18,900	70.2	1,326,800	2,839,400
Morris	32,000	31,300	27,200	74.7	2,031,700	4,347,900
Osage	35,500	34,900	31,500	75.3	2,372,100	5,076,300
Shawnee	22,900	22,100	20,700	73.6	1,522,700	3,258,600
Wabaunsee	22,200	21,600	18,500	75.4	1,395,200	2,985,700
District total	322,000	312,900	281,600	72.8	20,488,600	43,845,800
Southeast District:						
Allen	17,100	16,800	15,400	74.4	1,146,400	2,487,700
Bourbon	20,600	19,700	17,500	59.3	1,038,300	2,253,100
Butler	74,000	70,400	65,700	71.2	4,675,500	10,146,100
Chautauqua	3,600	3,500	3,100	51.1	158,400	343,700
Cherokee	12,200	12,000	10,800	55.6	600,700	1,303,500
Cowley	28,300	27,600	25,500	50.8	1,295,800	2,811,900
Crawford	27,300	27,200	25,400	67.5	1,713,600	3,718,500
Elk	9,200	8,500	6,900	40.0	276,000	598,900
Greenwood	16,500	16,000	12,600	62.0	780,700	1,694,100
Labette	21,300	21,000	18,600	54.0	1,003,700	2,178,000
Montgomery	21,400	20,500	17,200	47.4	816,100	1,770,900
Neosho	17,000	16,800	16,000	60.9	974,000	2,113,600
Wilson	28,000	27,300	26,100	58.1	1,516,200	3,290,200
Woodson	12,500	12,400	12,100	69.1	836,600	1,815,400
District total	309,000	299,700	272,900	61.7	16,832,000	36,525,600
State	4,250,000	4,140,000	3,560,000	67.0	238,520,000	515,203,000

SORGHUM FOR SILAGE, 1980

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
Northwest District:				
Cheyenne	500	12.5	6,200	125,800
Decatur	3,900	10.0	38,200	775,200
Graham	2,400	11.0	26,500	537,700
Norton	3,800	12.5	47,800	970,000
Rawlins	3,200	13.0	41,400	840,100
Sheridan	3,300	12.5	41,500	842,100
Sherman	300	11.0	3,300	67,000
Thomas	4,600	15.5	70,200	1,424,400
District total	22,000	12.5	275,100	5,582,300
West Central District:				
Gove	8,100	15.0	121,900	2,226,100
Greeley	2,000	17.5	34,900	637,400
Lane	900	12.0	11,000	200,900
Logan	1,000	10.5	10,500	191,800
Ness	1,800	14.0	25,400	463,900
Scott	3,800	14.5	54,700	999,000
Trego	4,900	11.5	56,400	1,030,000
Wallace	300	15.5	4,700	85,800
Wichita	3,600	16.5	58,700	1,072,000
District total	26,400	14.5	378,200	6,906,900
Southwest District:				
Clark	1,000	13.5	13,700	248,800
Finney	3,800	13.0	48,500	880,800
Ford	2,300	13.5	30,500	553,900
Grant	2,000	15.0	30,300	550,300
Gray	700	18.0	12,600	228,800
Hamilton	5,500	19.5	108,600	1,972,500
Haskell	1,400	19.0	26,900	488,500
Hodgeman	3,400	14.0	47,900	869,900
Kearny	1,400	10.0	13,800	250,600
Meade	700	13.5	9,600	174,300
Morton	900	14.0	12,400	225,200
Seward				
Stanton	700	10.0	6,900	125,300
Stevens	200	14.0	2,800	50,900
District total	24,000	15.0	364,500	6,619,800
North Central District:				
Clay	8,100	5.0	39,100	745,800
Cloud	1,100	6.5	6,900	131,600
Jewell	3,700	9.0	32,700	623,700
Mitchell	3,400	8.5	29,400	560,800
Osborne	6,200	10.5	66,000	1,258,900
Ottawa	1,700	7.5	12,700	242,200
Phillips	6,600	9.0	58,900	1,123,500
Republic	4,000	6.5	26,900	513,100
Rooks	3,700	9.0	34,100	650,400
Smith	10,100	12.0	121,000	2,308,100
Washington	5,100	8.0	39,600	755,300
District total	53,700	8.5	467,300	8,913,400
Central District:				
Barton	300	13.5	4,000	79,100
Dickinson	11,500	5.5	61,000	1,206,900
Ellis	100	7.0	700	13,800
Ellsworth	500	5.0	2,400	47,500
Lincoln	2,800	5.5	15,300	302,700
McPherson	4,200	9.0	37,100	734,000
Marion	16,000	4.0	60,100	1,189,100
Rice	1,300	8.5	11,300	223,600
Rush	1,300	11.0	14,300	282,900
Russell	2,300	7.0	15,700	310,600
Saline	1,400	6.5	8,800	174,100
District total	41,700	5.5	230,700	4,564,300

SORGHUM FOR SILAGE, 1980—*Concluded*

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
South Central District:				
Barber	2,400	9.5	22,300	443,500
Comanche	3,600	13.5	48,400	962,500
Edwards	4,000	11.5	45,000	894,900
Harper	2,500	5.0	12,100	240,600
Harvey	6,100	8.0	47,400	942,600
Kingman	2,200	8.5	18,200	361,900
Kiowa				
Pawnee	1,000	14.0	14,200	282,400
Pratt	700	11.5	8,100	161,100
Reno	10,100	10.5	108,300	2,153,600
Sedgwick	2,600	7.5	19,500	387,800
Stafford	4,800	11.0	52,500	1,044,000
Sumner	5,100	6.0	29,700	590,600
District total	45,100	9.5	425,700	8,465,500
Northeast District:				
Atchison	1,400	11.0	15,200	262,200
Brown	2,000	7.0	14,200	244,900
Doniphan	300	9.5	2,900	50,000
Jackson	1,700	8.5	14,400	248,400
Jefferson	400	13.5	5,400	93,100
Leavenworth	3,800	7.0	27,000	465,700
Marshall	3,800	7.5	28,400	489,800
Nemaha	8,500	6.0	48,900	843,500
Pottawatomie	1,200	6.0	7,300	125,900
Riley	3,400	6.5	21,300	367,400
Wyandotte				
District total	26,500	7.0	185,000	3,190,900
East Central District:				
Anderson				
Chase	1,200	7.0	8,100	140,500
Coffey	6,000	4.5	27,100	470,200
Douglas	900	6.5	5,700	98,900
Franklin	900	8.0	7,200	124,900
Geary	1,200	6.0	7,300	126,700
Johnson				
Linn	500	6.0	2,900	50,300
Lyon	2,300	5.5	12,100	209,900
Miami	300	7.5	2,300	39,900
Morris	8,400	6.5	53,900	935,100
Osage	3,000	10.5	32,200	558,700
Shawnee	600	7.0	4,200	72,900
Wabaunsee	2,000	5.5	10,900	189,100
District total	27,300	6.5	173,900	3,017,100
Southeast District:				
Allen				
Bourbon	1,700	6.0	10,600	236,600
Butler	9,600	5.0	47,100	1,051,300
Chautauqua	400	6.0	2,300	51,300
Cherokee				
Cowley	2,100	6.0	12,900	287,900
Crawford	1,700	5.0	8,600	192,000
Elk	1,900	5.0	9,100	203,100
Greenwood	5,500	6.0	32,700	729,900
Labette	1,300	6.0	8,100	180,800
Montgomery	900	5.5	4,900	109,400
Neosho	1,300	8.5	10,800	241,100
Wilson	1,300	4.0	4,900	109,400
Woodson	600	4.5	2,600	58,000
District total	28,300	5.5	154,600	3,450,800
State	295,000	9.0	2,655,000	50,711,000

SORGHUM FOR SILAGE, 1981

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
Northwest District:				
Cheyenne	300	13.5	4,000	71,200
Decatur	3,100	12.5	38,300	681,400
Graham	2,900	12.5	35,600	633,300
Norton	2,900	12.0	34,700	617,300
Rawlins	400	13.5	5,400	96,100
Sheridan	3,700	15.0	56,300	1,001,400
Sherman	300	10.0	3,000	53,400
Thomas	1,000	12.0	12,100	215,300
District total	14,600	13.0	189,400	3,369,400
West Central District:				
Gove	7,700	15.0	113,800	1,768,500
Greeley	1,800	13.5	24,600	382,300
Lane	3,900	18.0	69,300	1,076,900
Logan	2,500	17.0	42,100	654,200
Ness	1,300	14.0	18,500	287,500
Scott	16,800	16.0	270,200	4,198,800
Trego	3,500	10.5	35,900	557,900
Wallace	100	14.0	1,400	21,800
Wichita	3,300	17.0	55,300	859,400
District total	40,900	15.5	631,100	9,807,300
Southwest District:				
Clark	400	14.0	5,600	93,400
Finney	800	14.0	11,100	185,000
Ford	3,500	16.0	56,600	943,500
Grant	1,700	21.5	36,900	615,100
Gray	800	16.5	13,300	221,700
Hamilton	1,200	22.0	26,400	440,100
Haskell	800	19.0	15,300	255,000
Hodgeman	3,000	17.0	50,700	845,200
Kearny	2,800	16.5	46,400	773,500
Meade	700	17.0	12,000	200,000
Morton	1,000	14.0	13,800	230,000
Seward	4,200	17.5	72,800	1,213,700
Stanton	400	23.0	9,100	151,700
Stevens	2,000	17.0	34,400	573,400
District total	23,300	17.5	404,400	6,741,300
North Central District:				
Clay	2,600	14.0	36,100	574,000
Cloud	2,100	17.5	36,300	577,200
Jewell	5,100	12.0	62,000	985,800
Mitchell	2,300	15.5	36,200	575,600
Osborne	7,300	17.0	123,300	1,960,500
Ottawa	1,800	10.5	18,500	294,200
Phillips	4,400	13.0	56,500	898,400
Republic	1,700	11.5	19,200	305,300
Rooks	11,600	11.0	128,900	2,049,500
Smith	13,400	14.0	187,100	2,974,700
Washington	6,400	12.0	77,000	1,224,300
District total	58,700	13.5	781,100	12,419,500
Central District:				
Barton	800	11.5	9,200	155,500
Dickinson	4,400	12.0	53,300	901,100
Ellis	4,200	11.5	49,000	828,400
Ellsworth	2,700	10.0	26,400	446,300
Lincoln	4,400	12.0	53,300	901,100
McPherson	3,400	16.0	55,100	931,500
Marion	9,400	14.5	135,800	2,295,700
Rice	3,300	14.5	47,900	809,800
Rush	1,200	14.0	16,500	278,900
Russell	3,900	10.0	38,100	644,100
Saline	3,100	15.5	48,100	813,200
District total	40,800	13.0	532,700	9,005,600

SORGHUM FOR SILAGE, 1981—*Concluded*

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
South Central District:				
Barber	2,300	10.0	22,800	391,900
Comanche	3,200	12.5	40,000	687,600
Edwards	1,200	14.0	16,900	290,500
Harper	1,100	7.5	8,000	137,500
Harvey	2,400	14.5	34,700	596,500
Kingman	1,600	9.5	14,900	256,100
Kiowa	300	8.0	2,400	41,300
Pawnee	1,000	10.5	10,700	183,900
Pratt	1,000	12.5	12,400	213,200
Reno	5,500	11.5	63,000	1,083,100
Sedgwick	3,600	11.0	40,200	691,000
Stafford	600	13.0	7,900	135,800
Sumner	3,100	8.5	26,000	446,900
District total	26,900	11.0	299,900	5,155,300
Northeast District:				
Atchison	1,000	13.0	12,800	196,100
Brown	1,800	11.0	19,500	298,700
Doniphan	400	11.0	4,300	65,900
Jackson	1,800	14.0	24,900	381,500
Jefferson	2,400	11.0	26,000	398,300
Leavenworth	1,500	14.5	21,400	327,900
Marshall	5,300	13.5	70,500	1,080,100
Nemaha	5,300	14.0	73,200	1,121,400
Pottawatomie	4,000	13.5	53,100	813,500
Riley	3,300	14.0	47,000	720,000
Wyandotte				
District total	26,800	13.0	352,700	5,403,400
East Central District:				
Anderson	500	12.0	6,000	96,000
Chase	3,600	14.0	49,500	792,000
Coffey	3,800	14.5	54,400	870,400
Douglas	1,100	11.0	12,000	192,000
Franklin	1,000	12.0	12,100	193,600
Geary	1,300	12.0	15,900	254,400
Johnson	500	15.0	7,400	118,400
Linn	800	12.5	10,100	161,600
Lyon	3,600	13.5	49,200	787,200
Miami	700	14.0	9,900	158,400
Morris	3,500	14.5	50,700	811,200
Osage	3,200	12.0	38,300	612,800
Shawnee	1,100	10.0	11,100	177,600
Wabaunsee	2,500	11.5	29,100	465,600
District total	27,200	13.0	355,700	5,691,200
Southeast District:				
Allen	1,100	13.5	14,600	275,600
Bourbon	1,700	10.5	17,800	336,100
Butler	3,100	13.5	42,300	798,500
Chautauqua	300	8.5	2,600	49,100
Cherokee	900	8.5	7,500	141,600
Cowley	1,700	10.0	16,800	317,200
Crawford	1,400	11.5	16,200	305,900
Elk	1,100	8.0	8,600	162,400
Greenwood	3,000	11.5	34,700	655,100
Labette	2,300	10.5	24,000	453,100
Montgomery	2,900	12.5	36,000	679,700
Neosho	300	9.0	2,700	51,000
Wilson	800	9.5	7,400	139,700
Woodson	200	9.0	1,800	34,000
District total	20,800	11.0	233,000	4,399,000
State	280,000	13.5	3,780,000	61,992,000

SORGHUM FOR FORAGE, 1980

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
Northwest District:				
Cheyenne	4,700	3.0	14,000	513,800
Decatur	6,900	3.8	25,900	950,500
Graham	12,800	2.4	30,300	1,112,000
Norton	7,600	3.5	26,600	976,200
Rawlins	6,600	3.2	20,800	763,300
Sheridan	12,900	4.0	51,000	1,871,500
Sherman	3,200	3.4	10,900	400,000
Thomas	4,700	3.0	14,000	513,800
District total	59,400	3.3	193,500	7,101,100
West Central District:				
Gove	14,000	3.8	52,700	1,812,300
Greeley	2,900	2.7	7,900	271,700
Lane	2,300	3.9	8,900	306,100
Logan	2,400	3.3	8,000	275,100
Ness	3,900	2.6	10,300	354,200
Scott	1,100	2.7	3,000	103,200
Trego	13,100	3.0	39,000	1,341,300
Wallace	4,600	3.6	16,500	567,500
Wichita	100	4.0	400	13,800
District total	44,400	3.3	146,700	5,045,200
Southwest District:				
Clark	8,000	2.3	18,200	667,900
Finney	3,700	3.5	13,000	477,100
Ford	5,400	3.5	19,000	697,200
Grant	2,700	4.0	10,800	396,300
Gray	2,200	3.5	7,700	282,600
Hamilton	4,600	1.4	6,300	231,200
Haskell	800	1.6	1,300	47,700
Hodgeman	2,400	2.2	5,300	194,500
Kearny	3,200	3.0	9,500	348,600
Meade	4,000	1.3	5,300	194,500
Morton	4,600	1.0	4,600	168,800
Seward	2,400	1.7	4,000	146,800
Stanton	800	1.0	800	29,400
Stevens	2,300	2.2	5,000	183,500
District total	47,100	2.4	110,800	4,066,100
North Central District:				
Clay	5,500	1.3	7,200	235,500
Cloud	5,700	1.8	10,000	327,100
Jewell	7,300	3.1	22,400	732,800
Mitchell	9,500	3.3	30,900	1,010,800
Osborne	9,600	2.9	27,800	909,400
Ottawa	1,500	3.0	4,500	147,200
Phillips	13,200	2.5	33,600	1,099,200
Republic	4,400	2.5	10,800	353,300
Rooks	14,600	3.3	48,700	1,593,200
Smith	10,700	3.8	40,200	1,315,100
Washington	6,200	2.9	17,900	585,600
District total	88,200	2.9	254,000	8,309,200
Central District:				
Barton	4,200	2.9	12,100	444,000
Dickinson	3,800	3.1	11,700	429,400
Ellis	9,800	2.7	26,000	954,000
Ellsworth	5,200	1.4	7,300	267,900
Lincoln	3,500	1.5	5,200	190,800
McPherson	2,900	2.9	8,400	308,300
Marion	12,500	1.1	14,200	521,100
Rice	3,000	2.1	6,300	231,200
Rush	5,400	3.9	21,300	781,700
Russell	10,600	2.1	22,300	818,400
Saline	2,300	1.7	3,800	139,500
District total	63,200	2.2	138,600	5,086,300

SORGHUM FOR FORAGE, 1980—*Concluded*

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
South Central District:				
Barber	16,900	2.8	46,500	1,867,500
Comanche	13,700	1.8	25,200	1,012,000
Edwards	1,500	2.9	4,300	172,700
Harper	2,300	2.1	4,800	192,800
Harvey	3,400	3.4	11,600	465,800
Kingman	11,500	2.4	27,100	1,088,300
Kiowa	6,500	2.7	17,300	694,700
Pawnee	3,700	3.0	11,000	441,700
Pratt	3,600	3.3	12,000	481,900
Reno	2,700	3.6	9,700	389,500
Sedgwick	5,200	3.3	17,300	694,700
Stafford	2,000	3.8	7,600	305,200
Sumner	5,300	1.9	10,200	409,600
District total	78,300	2.6	204,600	8,216,400
Northeast District:				
Atchison	200	2.5	500	11,500
Brown	600	4.0	2,400	55,400
Doniphan				
Jackson	200	2.0	400	9,200
Jefferson	500	2.2	1,100	25,400
Leavenworth	300	1.7	500	11,500
Marshall	2,600	3.5	3,000	207,600
Nemaha	1,400	1.9	2,600	60,000
Pottawatomie	500	3.0	1,500	34,600
Riley	1,800	3.9	7,000	161,500
Wyandotte				
District total	8,100	3.1	25,000	576,700
East Central District:				
Anderson	2,600	1.8	4,600	124,400
Chase	900	1.3	1,200	32,500
Coffey	3,400	1.1	3,900	105,500
Douglas				
Franklin	100	3.0	300	8,100
Geary	2,200	1.8	3,900	105,500
Johnson				
Linn	2,700	1.9	5,000	135,300
Lyon	2,400	2.3	5,500	148,800
Miami	300	1.3	400	10,800
Morris	6,000	2.2	12,900	349,000
Osage				
Shawnee	700	3.6	2,500	67,600
Wabaunsee	1,600	2.2	3,500	94,700
District total	22,900	1.9	43,700	1,182,200
Southeast District:				
Allen	1,200	2.2	2,600	95,400
Bourbon	1,000	2.8	2,800	102,800
Butler	3,100	1.6	4,900	179,800
Chautauqua	2,200	1.0	2,100	77,100
Cherokee	800	1.8	1,400	51,400
Cowley	1,100	2.1	2,300	84,400
Crawford	5,200	1.6	8,200	300,900
Elk	4,200	1.0	4,000	146,800
Greenwood	3,600	2.4	8,600	315,600
Labette				
Montgomery	4,200	1.6	6,600	242,200
Neosho	1,000	2.9	2,900	106,400
Wilson	3,700	1.4	5,300	194,500
Woodson	2,100	2.1	4,400	161,500
District total	33,400	1.7	56,100	2,058,800
State	445,000	2.6	1,173,000	41,642,000

SORGHUM FOR FORAGE, 1981

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
Northwest District:				
Cheyenne	2,500	4.0	10,100	319,200
Decatur	6,300	4.1	25,800	815,400
Graham	12,200	3.2	39,600	1,251,500
Norton	9,900	4.7	47,000	1,485,400
Rawlins	5,000	5.0	24,900	787,000
Sheridan	9,400	5.3	50,200	1,586,600
Sherman	2,400	2.7	6,500	205,400
Thomas	5,600	3.1	17,500	553,100
District total	53,300	4.2	221,600	7,003,600
West Central District:				
Gove	4,800	3.9	18,500	662,100
Greeley	2,000	2.7	5,300	189,700
Lane	2,600	3.1	8,100	289,900
Logan	2,800	3.2	8,900	318,500
Ness	6,200	4.1	25,200	901,900
Scott	1,300	4.4	5,700	204,000
Trego	9,400	4.2	39,900	1,428,100
Wallace	2,000	3.4	6,700	239,800
Wichita	4,400	2.7	11,700	418,800
District total	35,500	3.7	130,000	4,652,800
Southwest District:				
Clark	7,700	3.0	23,400	865,300
Finney	2,200	4.0	8,800	325,400
Ford	3,500	3.9	13,600	502,900
Grant	3,400	4.0	13,600	502,900
Gray	1,400	5.4	7,600	281,100
Hamilton	2,500	4.0	10,000	369,800
Haskell	1,300	2.2	2,900	107,200
Hodgeman	6,300	4.3	26,800	991,200
Kearny	1,700	2.0	3,400	125,700
Meade	2,400	2.0	4,800	177,500
Morton	3,200	1.6	5,000	184,900
Seward	1,600	2.0	3,200	118,300
Stanton	3,600	2.0	7,100	262,600
Stevens	2,400	5.0	12,000	443,800
District total	43,200	3.3	142,200	5,258,600
North Central District:				
Clay	800	6.3	5,000	125,500
Cloud	1,300	3.7	4,800	120,500
Jewell	4,600	5.4	24,800	622,600
Mitchell	2,700	5.1	13,800	346,400
Osborne	7,800	5.5	43,200	1,084,700
Ottawa	400	5.5	2,200	55,200
Phillips	8,300	4.6	38,500	966,500
Republic	900	4.8	4,300	108,000
Rooks	6,600	3.9	25,900	650,200
Smith	5,300	4.6	24,200	607,500
Washington	2,200	6.5	14,400	361,500
District total	40,900	4.9	201,100	5,048,600
Central District:				
Barton	3,500	3.3	11,500	341,600
Dickinson	1,600	5.0	8,000	237,600
Ellis	7,100	4.5	31,800	944,600
Ellsworth	3,300	4.0	13,100	389,100
Lincoln	3,000	4.2	12,600	374,300
McPherson	1,300	5.4	7,000	207,900
Marion	3,400	5.0	17,100	508,000
Rice	1,300	3.5	4,600	136,600
Rush	5,500	4.6	25,300	751,500
Russell	8,600	4.4	38,200	1,134,900
Saline	1,200	4.7	5,600	166,300
District total	39,800	4.4	174,800	5,192,400

SORGHUM FOR FORAGE, 1981—*Concluded*

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
South Central District:				
Barber	7,300	3.1	22,600	779,800
Comanche	10,400	3.5	36,900	1,273,300
Edwards	2,500	4.8	12,000	414,100
Harper	1,900	4.5	8,500	293,300
Harvey	4,500	5.0	22,400	772,900
Kingman	8,100	2.8	23,000	793,600
Kiowa	8,500	3.6	31,000	1,069,600
Pawnee	3,500	3.4	11,900	410,600
Pratt	5,400	3.1	17,000	586,600
Reno	3,600	5.8	20,700	714,200
Sedgwick	1,500	5.2	7,800	269,100
Stafford	11,600	3.1	36,500	1,259,400
Sumner	2,100	3.6	7,500	258,800
District total	70,900	3.6	257,800	8,895,300
Northeast District:				
Atchison	600	6.0	3,600	60,100
Brown	300	5.0	1,500	25,100
Doniphan	100	4.0	400	6,700
Jackson	500	5.0	2,500	41,800
Jefferson	400	5.0	2,000	33,400
Leavenworth	300	3.7	1,100	18,400
Marshall	900	6.3	5,700	95,200
Nemaha	1,000	4.0	4,000	66,800
Pottawatomie	1,800	4.0	7,200	120,200
Riley	300	5.3	1,600	26,700
Wyandotte	100	5.0	500	8,400
District total	6,300	4.8	30,100	502,800
East Central District:				
Anderson	100	6.0	600	14,100
Chase	200	5.0	1,000	23,500
Coffey	500	4.0	2,000	47,000
Douglas	200	5.0	1,000	23,500
Franklin	100	4.0	400	9,400
Geary	200	5.0	1,000	23,500
Johnson	100	5.0	500	11,800
Linn	300	3.0	900	21,200
Lyon	300	3.0	900	21,200
Miami	400	4.5	1,800	42,300
Morris	600	5.3	3,200	75,200
Osage	200	5.0	1,000	23,500
Shawnee	300	4.7	1,400	32,900
Wabaunsee	600	6.0	3,600	84,500
District total	4,100	4.7	19,300	453,600
Southeast District:				
Allen	300	3.3	1,000	29,100
Bourbon	500	3.6	1,800	52,400
Butler	1,600	5.5	8,800	256,000
Chautauqua	100	5.0	500	14,600
Cherokee	300	2.0	600	17,500
Cowley	400	3.8	1,500	43,700
Crawford	400	3.0	1,200	34,900
Elk	500	2.0	1,000	29,100
Greenwood	400	3.8	1,500	43,700
Labette	100	3.0	300	8,700
Montgomery	400	5.5	2,200	64,000
Neosho	500	3.0	1,500	43,700
Wilson	400	2.0	800	23,300
Woodson	100	4.0	400	11,600
District total	6,000	3.9	23,100	672,300
State	300,000	4.0	1,200,000	37,680,000

SORGHUM FOR GRAIN—IRRIGATED AND DRYLAND, 1980

County	Irrigated			Dryland		
	Acres harvested	Yield per acre, bushels	Production, bushels	Acres harvested	Yield per acre, bushels	Production, bushels
Northwest District:						
Cheyenne	4,000	82.1	328,200	2,800	52.0	145,500
Decatur	500	85.0	42,500	22,900	37.0	846,200
Graham	1,300	70.0	91,000	12,600	29.3	368,600
Norton	4,100	72.5	297,100	20,000	32.9	657,000
Rawlins	4,900	92.7	454,000	10,600	49.5	524,200
Sheridan	7,800	81.0	631,500	7,400	39.0	288,300
Sherman	9,200	82.1	755,000	700	38.0	26,600
Thomas	8,000	76.0	607,600	10,900	44.1	480,200
District total	39,800	80.6	3,206,900	87,900	38.0	3,336,600
West Central District:						
Gove	3,700	78.2	289,200	16,000	46.8	748,000
Greeley	2,600	76.1	197,800	10,300	36.6	376,500
Lane	6,400	73.0	466,900	9,900	45.5	450,000
Logan	400	81.3	32,500	6,700	40.0	268,200
Ness	2,900	78.7	228,300	14,100	42.3	597,100
Scott	21,700	71.0	1,539,700	7,500	44.7	334,900
Trego	500	81.2	40,600	14,800	42.8	632,700
Wallace	9,300	93.0	864,500	1,700	38.0	64,600
Wichita	18,600	89.8	1,669,400	9,900	53.6	530,200
District total	66,100	80.6	5,328,900	90,900	44.0	4,002,200
Southwest District:						
Clark	600	74.7	44,800	4,400	35.1	154,300
Finney	37,300	90.1	3,358,900	22,100	37.8	834,300
Ford	27,900	92.7	2,585,000	14,400	40.0	575,300
Grant	36,700	75.1	2,757,000	33,600	37.0	1,243,100
Gray	28,700	84.5	2,423,800	14,500	34.8	503,900
Hamilton	5,700	90.7	516,800	5,900	22.9	134,900
Haskell	35,800	95.3	3,410,000	11,900	30.3	360,000
Hodgeman	6,100	93.3	569,000	10,900	42.6	463,800
Kearny	17,900	74.2	1,327,300	2,300	40.9	94,000
Meade	48,500	96.7	4,687,600	7,700	30.9	237,600
Morton	27,500	78.8	2,165,700	75,200	24.1	1,808,600
Seward	36,200	81.2	2,937,700	41,100	38.0	1,559,800
Stanton	32,700	83.7	2,735,400	15,200	27.5	417,300
Stevens	44,000	80.7	3,548,600	141,300	33.4	4,714,900
District total	385,600	85.8	33,067,600	400,500	32.7	13,101,800
North Central District:						
Clay	1,600	54.5	87,200	27,200	22.9	621,600
Cloud	2,700	63.6	171,600	17,500	18.3	319,400
Jewell	1,000	80.9	80,900	61,600	43.9	2,701,200
Mitchell	400	85.0	34,000	25,300	23.9	603,500
Osborne	1,700	96.8	164,500	18,500	37.8	698,400
Ottawa	700	53.0	37,100	1,900	11.9	22,600
Phillips	700	64.9	45,400	27,900	40.4	1,125,800
Republic	3,200	68.6	219,400	68,700	27.9	1,913,300
Rooks	400	69.8	27,900	18,100	27.0	487,800
Smith	5,700	100.0	569,800	47,300	54.0	2,556,400
Washington	1,800	88.1	158,500	90,800	25.6	2,320,000
District total	19,900	80.2	1,596,300	404,800	33.0	13,370,000
Central District:						
Barton	10,000	104.9	1,049,300	34,900	45.6	1,593,100
Dickinson	1,600	45.8	73,200	34,900	18.5	644,000
Ellis	500	85.0	42,500	15,200	40.4	614,600
Ellsworth	200	72.0	14,400	20,000	26.9	537,000
Lincoln	1,200	64.8	77,700	15,100	24.3	366,200
McPherson	14,000	75.9	1,061,900	43,800	25.5	1,114,800
Marion	1,100	41.9	46,100	64,900	16.5	1,067,700
Rice	1,300	84.8	110,200	61,400	44.4	2,723,100
Rush	5,300	78.0	413,200	9,700	44.9	435,100
Russell	400	70.0	28,000	17,200	33.3	571,900
Saline	2,800	56.4	157,800	4,600	11.2	51,300
District total	38,400	80.1	3,074,300	321,700	30.2	9,718,800

SORGHUM FOR GRAIN—IRRIGATED AND DRYLAND, 1980—*Concluded*

County	Irrigated			Dryland		
	Acres harvested	Yield per acre, bushels	Production, bushels	Acres harvested	Yield per acre, bushels	Production, bushels
South Central District:						
Barber	300	92.7	27,800	1,000	30.5	30,500
Comanche	800	84.0	67,200	6,900	30.7	212,100
Edwards	17,200	83.1	1,428,500	18,600	40.0	743,100
Harper	500	62.8	31,400	6,800	35.6	242,000
Harvey	5,600	73.2	409,700	59,800	22.7	1,354,500
Kingman	3,500	91.2	319,100	9,600	31.7	303,900
Kiowa	16,700	66.0	1,101,400	14,800	33.8	499,500
Pawnee	17,600	96.9	1,704,600	24,300	40.4	980,600
Pratt	13,700	69.2	947,400	37,000	38.3	1,415,300
Reno	18,100	81.6	1,476,100	76,700	47.1	3,608,800
Sedgwick	2,800	92.8	259,700	61,600	31.5	1,940,400
Stafford	24,900	94.0	2,339,400	32,000	34.9	1,115,200
Sumner	800	59.0	47,200	13,600	25.6	347,500
District total	122,500	82.9	10,159,500	362,700	35.3	12,793,400
Northeast District:						
Atchison	300	73.7	22,100	37,100	60.5	2,242,700
Brown				40,800	54.9	2,237,900
Doniphan	100	84.0	8,400	9,400	81.4	764,700
Jackson	100	81.0	8,100	34,400	33.7	1,157,600
Jefferson	1,400	80.0	112,000	23,200	50.0	1,158,900
Leavenworth				18,600	57.8	1,074,200
Marshall	200	84.0	16,800	111,500	27.7	3,083,000
Nemaha	200	81.0	16,200	97,100	41.1	3,986,000
Pottawatomie	500	86.6	43,300	46,200	42.0	1,938,100
Riley	300	69.0	20,700	30,800	24.5	753,100
Wyandotte				1,300	41.2	53,500
District total	3,100	79.9	247,600	450,400	41.0	18,449,700
East Central District:						
Anderson	100	54.0	5,400	18,300	24.9	454,800
Chase	200	64.0	12,800	13,000	17.4	225,600
Coffey	700	64.0	44,800	23,400	21.4	499,600
Douglas	100	64.0	6,400	24,400	45.1	1,099,300
Franklin	300	74.0	22,200	22,500	34.9	784,200
Geary	700	69.0	48,300	9,600	29.1	278,900
Johnson	100	64.0	6,400	12,700	46.0	583,600
Linn	100	64.0	6,400	24,700	21.7	534,800
Lyon	200	64.0	12,800	49,300	24.3	1,195,600
Miami	200	64.0	12,800	24,800	36.9	913,900
Morris	300	64.0	19,200	24,900	21.6	536,600
Osage	600	64.0	38,400	50,900	37.4	1,901,200
Shawnee	1,400	60.0	84,000	25,000	38.1	951,300
Wabaunsee	900	59.0	53,100	23,600	22.1	520,400
District Total	5,900	63.2	373,000	347,100	30.2	10,479,800
Southeast District:						
Allen	100	54.0	5,400	26,100	23.2	604,300
Bourbon	300	63.0	18,900	21,500	18.0	386,000
Butler	700	63.0	44,100	66,100	22.3	1,470,800
Chautauqua				1,600	16.0	25,600
Cherokee	200	54.0	10,800	18,600	26.8	497,600
Cowley	2,400	77.0	184,700	23,500	29.0	680,400
Crawford	200	7.5	1,500	27,500	17.9	492,200
Elk	100	63.0	6,300	9,600	11.7	111,900
Greenwood	400	63.0	25,200	12,300	15.4	188,900
Labette	200	63.0	12,600	26,900	22.5	604,000
Montgomery	200	64.0	12,800	22,100	18.1	399,000
Neosho	1,200	59.0	70,800	25,300	22.6	570,600
Wilson	700	84.0	58,800	23,400	15.3	356,900
Woodson				21,500	23.0	493,500
District Total	6,700	67.4	451,900	326,000	21.1	6,881,700
State	688,000	83.6	57,506,000	2,792,000	33.0	92,134,000

SORGHUM FOR GRAIN—IRRIGATED AND DRYLAND, 1981

County	Irrigated			Dryland		
	Acres harvested	Yield per acre, bushels	Production, bushels	Acres harvested	Yield per acre, bushels	Production, bushels
Northwest District:						
Cheyenne	6,500	87.8	570,400	4,000	59.8	239,200
Decatur	6,100	77.0	469,800	27,600	48.0	1,324,500
Graham	3,900	79.4	309,700	14,600	41.8	610,700
Norton	1,100	99.5	109,400	19,000	60.5	1,149,500
Rawlins	6,000	90.8	544,700	24,600	61.1	1,504,200
Sheridan	17,000	100.0	1,700,000	14,200	51.2	727,000
Sherman	9,400	94.2	885,100	3,800	48.7	184,900
Thomas	18,500	99.4	1,809,100	31,800	56.9	1,809,000
District total	68,200	93.8	6,398,200	139,600	54.1	7,549,000
West Central District:						
Gove	6,500	95.0	617,500	29,000	50.3	1,458,400
Greeley	8,600	74.4	640,000	5,800	30.0	174,000
Lane	6,300	89.0	561,000	20,000	48.2	963,100
Logan	2,700	88.4	238,800	22,400	39.6	887,100
Ness	3,100	86.7	268,700	14,300	46.1	659,600
Scott	18,800	93.3	1,753,400	11,400	47.8	544,400
Trego	1,900	85.7	162,800	21,900	52.4	1,147,600
Wallace	16,100	84.4	1,358,300	2,100	41.8	87,800
Wichita	25,200	87.6	2,207,500	4,200	32.2	135,300
District total	89,200	87.5	7,808,000	131,100	46.2	6,057,300
Southwest District:						
Clark	1,700	65.0	110,500	5,000	41.2	205,900
Finney	49,300	99.1	4,884,100	33,400	46.8	1,561,900
Ford	29,800	100.7	3,000,800	25,000	51.9	1,298,100
Grant	41,900	93.4	3,913,100	33,900	36.2	1,228,800
Gray	53,300	103.5	5,517,700	25,600	53.7	1,373,600
Hamilton	6,500	72.7	472,700	14,700	46.1	678,100
Haskell	56,500	105.9	5,985,100	11,400	66.6	759,400
Hodgeman	6,800	90.8	617,500	12,000	51.1	613,400
Kearny	16,700	80.0	1,336,000	9,300	45.0	418,100
Meade	52,000	96.3	5,009,100	20,400	50.0	1,019,400
Morton	29,200	79.4	2,317,600	77,800	31.1	2,422,600
Seward	44,300	98.4	4,358,100	50,700	35.3	1,787,300
Stanton	37,900	78.7	2,982,000	24,700	34.0	839,800
Stevens	56,000	95.8	5,364,300	135,000	36.8	4,966,800
District total	481,900	95.2	45,868,600	478,900	40.0	19,173,200
North Central District:						
Clay	1,600	88.0	140,800	28,300	69.5	1,968,100
Cloud	2,400	82.9	199,000	25,200	68.3	1,722,400
Jewell	6,500	82.2	534,100	53,100	59.3	3,149,600
Mitchell	800	81.3	65,000	25,600	62.8	1,606,600
Osborne	2,400	84.4	202,600	17,300	58.0	1,003,800
Ottawa	500	90.0	45,000	5,000	46.8	234,000
Phillips	800	80.0	64,000	32,300	47.7	1,540,700
Republic	3,900	78.5	306,100	44,000	63.6	2,796,500
Rooks	1,400	71.1	99,600	18,000	43.1	775,900
Smith	5,100	95.9	489,100	55,100	68.5	3,774,400
Washington	3,000	80.0	239,900	70,900	71.1	5,044,400
District total	28,400	84.0	2,385,200	374,800	63.0	23,616,400
Central District:						
Barton	15,700	87.8	1,378,000	32,000	56.3	1,801,900
Dickinson	800	95.0	76,000	29,300	60.8	1,782,300
Ellis	800	69.4	55,500	12,200	50.6	617,400
Ellsworth	200	82.0	16,400	12,500	51.0	637,700
Lincoln	200	98.0	19,600	10,500	58.7	616,400
McPherson	7,500	96.5	723,400	41,900	66.0	2,765,400
Marion	900	99.2	89,300	67,400	75.4	5,080,100
Rice	4,500	95.5	429,800	48,400	63.8	3,087,600
Rush	5,400	78.0	421,200	13,600	47.9	651,500
Russell				12,900	52.5	677,300
Saline	600	83.3	50,000	10,300	52.7	542,400
District total	36,600	89.0	3,259,200	291,000	62.7	18,260,000

SORGHUM FOR GRAIN—IRRIGATED AND DRYLAND, 1981—*Concluded*

County	Irrigated			Dryland		
	Acres harvested	Yield per acre, bushels	Production, bushels	Acres harvested	Yield per acre, bushels	Production, bushels
South Central District:						
Barber	500	92.0	46,000	4,100	37.8	154,900
Comanche	1,100	65.0	71,500	13,000	34.7	450,500
Edwards	25,200	90.7	2,285,700	28,400	47.4	1,344,800
Harper	800	71.3	57,000	3,900	41.6	162,200
Harvey	6,800	85.7	582,600	50,800	60.1	3,054,900
Kingman	5,000	90.2	450,800	9,700	46.6	452,000
Kiowa	16,900	91.0	1,537,400	13,100	47.6	624,000
Pawnee	27,900	98.5	2,747,500	21,600	45.6	984,900
Pratt	17,800	96.4	1,716,000	31,600	49.2	1,554,500
Reno	12,700	88.6	1,125,300	85,800	46.3	3,969,300
Sedgwick	4,100	78.8	322,900	39,500	50.4	1,989,900
Stafford	28,200	91.5	2,579,300	39,100	52.7	2,059,500
Sumner	1,300	71.8	93,400	18,100	42.8	775,000
District total	148,300	91.8	13,615,400	358,700	49.0	17,576,400
Northeast District:						
Atchison				38,500	67.3	2,590,500
Brown				31,200	89.5	2,792,900
Doniphan				10,100	93.8	947,000
Jackson				26,400	72.6	1,916,900
Jefferson				26,700	68.4	1,825,400
Leavenworth				20,300	64.4	1,307,600
Marshall	600	86.8	52,100	77,100	77.6	5,983,100
Nemaha	400	95.8	38,300	84,700	83.2	7,045,600
Pottawatomie	1,500	89.7	134,500	34,100	81.4	2,776,800
Riley	600	94.0	56,400	25,700	81.5	2,095,000
Wyandotte				900	78.2	70,400
District Total	3,100	90.7	281,300	375,700	78.1	29,351,200
East Central District:						
Anderson	200	90.0	18,000	17,500	77.1	1,349,400
Chase	200	87.0	17,400	9,100	73.2	666,200
Coffey				23,100	78.1	1,803,800
Douglas	100	87.0	8,700	18,000	72.8	1,310,900
Franklin	900	80.0	72,000	15,700	78.3	1,229,500
Geary	500	94.2	47,100	10,500	79.0	829,300
Johnson				8,300	75.9	629,600
Linn	400	86.8	34,700	21,900	62.2	1,362,500
Lyon				38,400	64.1	2,461,000
Miami				18,900	70.2	1,326,800
Morris	400	92.5	37,000	26,800	74.4	1,994,700
Osage	600	96.5	57,900	30,900	74.9	2,314,200
Shawnee	1,400	94.1	131,800	19,300	72.1	1,390,900
Wabaunsee				18,500	75.4	1,395,200
District Total	4,700	90.3	424,600	276,900	72.5	20,064,000
Southeast District:						
Allen				15,400	74.4	1,146,400
Bourbon				17,500	59.3	1,038,300
Butler	200	94.0	18,800	65,500	71.1	4,656,700
Chautauqua	100	94.0	9,400	3,000	49.7	149,000
Cherokee				10,800	55.6	600,700
Cowley	800	75.0	60,000	24,700	50.0	1,235,800
Crawford	700	99.7	69,800	24,700	66.6	1,643,800
Elk				6,900	40.0	276,000
Greenwood	700	86.7	60,700	11,900	60.5	720,000
Labette	500	89.6	44,800	18,100	53.0	958,900
Montgomery	500	95.0	47,500	16,700	46.0	768,600
Neosho				16,000	60.9	974,000
Wilson				26,100	58.1	1,516,200
Woodson	100	85.0	8,500	12,000	69.0	828,100
District Total	3,600	88.8	319,500	269,300	61.3	16,512,500
State	864,000	93.0	80,360,000	2,696,000	58.7	158,160,000

CORN, 1980

County	All Corn		Corn for Grain			
	Acres planted	Acres harvested	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District:						
Cheyenne	20,000	19,700	18,200	97.7	1,779,000	5,636,000
Decatur	11,100	11,100	8,100	78.9	638,700	2,023,500
Graham	5,000	4,900	2,200	84.9	186,700	591,500
Norton	5,400	5,400	3,200	110.8	354,700	1,123,700
Rawlins	5,200	5,200	4,300	119.2	512,400	1,623,300
Sheridan	45,000	44,400	37,500	124.4	4,666,000	14,782,300
Sherman	53,000	52,800	46,300	105.1	4,864,000	15,409,500
Thomas	54,000	53,200	49,200	116.8	5,745,200	18,201,200
District total	198,700	196,700	169,000	110.9	18,746,700	59,391,000
West Central District:						
Gove	8,700	8,600	4,400	91.1	400,700	1,313,300
Greeley	11,000	11,000	11,000	108.6	1,195,000	3,916,700
Lane	6,800	6,400	2,800	106.6	298,500	978,400
Logan	7,500	7,500	7,500	106.7	800,200	2,622,700
Ness	500	400	200	76.0	15,200	49,800
Scott	28,200	28,200	19,400	97.5	1,891,000	6,197,900
Trego	1,300	1,200	600	59.0	35,400	116,000
Wallace	42,300	42,200	40,400	87.7	3,545,000	11,619,200
Wichita	42,000	41,900	40,000	105.0	4,200,000	13,766,000
District total	148,300	147,400	126,300	98.0	12,381,000	40,580,000
Southwest District:						
Clark	1,000	800	200	105.0	21,000	70,900
Finney	90,000	89,500	89,000	126.2	11,232,900	37,936,600
Ford	30,000	29,800	26,000	97.2	2,526,000	8,531,000
Grant	33,000	32,900	32,000	136.9	4,381,000	14,795,800
Gray	78,000	78,000	65,000	126.5	8,223,400	27,772,700
Hamilton	5,500	5,200	5,000	110.2	551,200	1,861,600
Haskell	90,000	89,200	86,000	130.1	11,188,300	37,785,900
Hodgeman	4,400	4,300	1,900	95.2	180,800	610,600
Kearny	42,000	41,600	16,400	118.4	1,942,000	6,558,700
Meade	19,000	19,000	18,600	112.2	2,086,100	7,045,300
Morton	4,700	4,700	4,700	112.2	527,500	1,781,500
Seward	14,100	14,000	12,000	110.2	1,322,000	4,464,800
Stanton	39,500	39,500	37,700	109.7	4,136,000	13,968,400
Stevens	20,000	20,000	19,200	112.1	2,152,100	7,268,200
District total	471,200	468,500	413,700	122.0	50,470,300	170,452,000
North Central District:						
Clay	15,100	14,900	9,100	83.8	763,000	2,493,200
Cloud	10,000	9,900	7,100	58.1	412,600	1,348,200
Jewell	8,500	8,500	5,200	111.1	577,600	1,887,400
Mitchell	3,500	3,500	2,100	75.0	157,500	514,700
Osborne	3,800	3,800	700	105.0	73,500	240,200
Ottawa	2,400	2,200	400	65.0	26,000	85,000
Phillips	5,000	5,000	3,500	68.6	240,200	784,900
Republic	42,000	41,500	35,600	90.0	3,204,700	10,471,400
Rooks	1,400	1,100	100	89.0	8,900	29,100
Smith	5,300	5,300	3,800	104.0	395,300	1,291,700
Washington	21,000	21,000	8,600	51.0	438,600	1,433,200
District total	118,000	116,700	76,200	82.6	6,297,900	20,579,000
Central District:						
Barton	10,500	10,300	9,900	86.9	860,700	2,898,200
Dickinson	10,600	9,900	1,300	46.6	60,600	204,100
Ellis	1,100	1,000				
Ellsworth	500	400				
Lincoln	2,000	1,900				
McPherson	12,000	11,600	6,800	82.4	560,000	1,885,600
Marion	8,100	7,200				
Rice	9,800	9,600	6,800	93.4	635,400	2,139,500
Rush	2,000	1,900				
Russell	600	500	100	88.0	8,800	29,600
Saline	4,100	3,600				
District total	61,300	57,900	24,900	85.4	2,125,500	7,157,000

CORN, 1980—*Concluded*

County	All Corn		Corn for Grain			
	Acres planted	Acres harvested	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
South Central District:						
Barber	600	600				
Comanche	100					
Edwards	18,000	18,000	17,700	115.5	2,045,000	6,886,100
Harper	300	100				
Harvey	9,200	8,900	4,500	87.2	392,200	1,320,600
Kingman	2,200	2,100				
Kiowa	8,500	8,500	8,500	99.7	847,500	2,853,800
Pawnee	8,600	8,600	8,300	106.9	887,300	2,987,800
Pratt	20,000	20,000	18,000	106.3	1,913,000	6,441,600
Reno	8,500	8,400	4,800	71.1	341,300	1,149,300
Sedgwick	14,000	13,900	11,900	87.3	1,038,400	3,496,600
Stafford	15,000	14,900	12,100	96.8	1,171,000	3,943,100
Sumner	2,000	2,000	1,500	79.6	119,400	402,100
District total	107,000	106,000	87,300	100.3	8,755,100	29,481,000
Northeast District:						
Atchison	24,000	23,900	17,200	32.2	553,100	1,676,800
Brown	72,000	65,100	51,700	34.1	1,762,100	5,342,300
Doniphan	68,000	67,600	65,400	70.9	4,637,500	16,901,500
Jackson	17,600	14,700	6,900	29.4	202,900	615,100
Jefferson	35,500	33,300	22,100	28.1	620,000	1,879,700
Leavenworth	20,200	20,100	14,400	40.4	581,200	1,762,000
Marshall	12,400	10,600	4,700	40.9	192,100	582,400
Nemaha	29,500	28,600	11,700	28.8	337,200	1,022,300
Pottawatomie	19,000	19,000	14,000	67.0	937,700	2,842,900
Riley	7,500	7,400	2,100	36.0	75,600	324,200
Wyandotte	2,200	2,100	1,600	20.4	32,600	98,800
District total	307,900	292,400	211,800	46.9	9,932,000	33,048,000
East Central District:						
Anderson	21,900	19,100	6,000	21.5	129,000	437,000
Chase	5,300	5,200	500	39.0	19,500	66,100
Coffey	15,800	13,600	2,100	28.2	59,200	200,500
Douglas	26,700	24,600	11,400	28.4	323,900	1,097,200
Franklin	21,600	17,000	2,800	39.0	109,100	369,600
Geary	2,700	2,600	200	45.0	9,000	30,500
Johnson	16,000	9,900	4,200	20.8	87,400	296,100
Linn	8,200	6,700	900	40.1	36,100	122,300
Lyon	17,000	16,000	1,800	65.1	117,100	396,700
Miami	15,000	7,000	1,000	22.6	22,600	76,500
Morris	4,500	4,300	700	30.1	21,100	71,500
Osage	10,900	10,500	2,200	34.3	75,400	255,400
Shawnee	31,200	26,000	16,400	36.4	597,500	2,023,700
Wabaunsee	13,000	6,000	1,300	50.8	66,100	223,900
District total	207,800	168,500	51,500	32.5	1,673,000	5,667,000
Southeast District:						
Allen	10,400	10,300	300	36.0	10,800	38,100
Bourbon	12,000	11,700	2,100	28.7	60,300	212,600
Butler	6,000	5,900				
Chautauqua	600	500	400	19.5	7,800	27,500
Cherokee	5,000	4,000	2,500	20.8	51,900	183,000
Cowley	1,500	1,400				
Crawford	7,500	7,300	1,900	27.5	52,300	184,400
Elk	600	400				
Greenwood	4,000	3,700	300	47.0	14,100	49,700
Labette	7,000	6,900	2,300	45.7	105,200	371,000
Montgomery	10,000	8,500	4,600	23.8	109,300	385,500
Neosho	7,100	5,000	300	34.0	10,200	36,000
Wilson	5,100	4,400	3,600	24.2	87,100	307,200
Woodson	3,000	2,900	1,000	29.5	29,500	104,000
District total	79,800	72,900	19,300	27.9	538,500	1,899,000
State	1,700,000	1,627,000	1,180,000	94.0	110,920,000	368,254,000

CORN, 1981

County	All Corn		Corn for Grain			
	Acres planted	Acres harvested	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District:						
Cheyenne	17,000	16,800	15,000	144.5	2,168,000	5,472,900
Decatur	12,000	12,000	10,600	117.1	1,241,000	3,132,800
Graham	4,000	4,000	3,900	136.7	533,000	1,345,500
Norton	4,500	4,500	4,100	134.5	551,300	1,391,700
Rawlins	2,500	2,500	2,400	139.0	333,500	841,900
Sheridan	34,700	34,700	29,900	160.6	4,803,000	12,124,600
Sherman	54,000	53,300	48,700	125.2	6,095,100	15,386,300
Thomas	46,300	46,100	42,800	148.5	6,355,000	16,042,300
District total	175,000	173,900	157,400	140.3	22,079,900	55,738,000
West Central District:						
Gove	8,400	8,400	3,600	135.0	486,000	1,260,900
Greeley	14,000	14,000	12,400	129.0	1,599,000	4,148,600
Lane	5,300	5,300	2,800	130.4	365,000	947,000
Logan	8,200	8,000	6,000	150.0	900,000	2,335,100
Ness	400	400	300	110.0	33,000	85,600
Scott	20,600	20,000	20,000	136.1	2,722,000	7,062,300
Trego	1,600	1,600	1,000	121.2	121,200	314,500
Wallace	44,400	44,400	36,500	131.5	4,798,000	12,448,400
Wichita	40,400	40,100	35,600	134.1	4,773,000	12,383,600
District total	143,300	142,200	118,200	133.6	15,797,200	40,986,000
Southwest District:						
Clark	400	300	100	148.0	14,800	39,600
Finney	90,000	88,800	84,900	133.9	11,369,000	30,408,200
Ford	32,900	32,700	29,600	141.0	4,173,600	11,162,900
Grant	24,600	24,400	22,200	160.3	3,558,000	9,516,400
Gray	71,000	70,200	67,500	147.9	9,982,000	26,698,500
Hamilton	4,900	4,900	4,500	129.3	582,000	1,556,600
Haskell	81,000	80,300	76,300	155.5	11,865,700	31,736,700
Hodgeman	5,200	5,000	1,400	149.3	209,000	559,000
Kearny	33,700	33,200	33,000	136.8	4,516,000	12,078,700
Meade	17,500	17,500	14,800	139.0	2,056,500	5,500,400
Morton	3,100	3,000	2,800	153.0	428,500	1,146,100
Seward	13,400	13,200	8,700	157.2	1,368,000	3,658,900
Stanton	38,600	38,100	38,000	137.0	5,206,000	13,924,200
Stevens	13,700	13,400	13,400	135.1	1,811,000	4,843,800
District total	430,000	425,000	397,200	143.9	57,140,100	152,830,000
North Central District:						
Clay	10,000	10,000	8,300	128.2	1,064,000	2,664,600
Cloud	9,500	9,500	9,000	134.3	1,209,000	3,027,700
Jewell	8,000	7,800	5,700	130.3	742,900	1,860,500
Mitchell	2,000	1,900	1,830	120.0	216,000	540,900
Osborne	2,000	2,000	1,700	107.5	182,700	457,500
Ottawa	3,500	3,200	700	130.4	91,300	228,600
Phillips	4,300	4,300	4,100	144.8	593,800	1,487,100
Republic	42,200	42,000	40,400	122.4	4,943,000	12,378,900
Rooks	1,000	1,000	700	123.9	86,700	217,100
Smith	2,800	2,800	2,300	138.5	318,500	797,600
Washington	21,900	21,900	19,700	111.4	2,194,000	5,494,500
District total	107,200	106,400	94,400	123.3	11,641,900	29,155,000
Central District:						
Barton	8,700	8,400	4,000	133.0	532,000	1,380,300
Dickinson	8,000	7,900	4,000	86.9	347,700	902,100
Ellis	800	700	400	129.8	51,900	134,700
Ellsworth	200	200	100	140.0	14,000	36,300
Lincoln	800	700	200	59.0	11,800	30,600
McPherson	9,800	9,700	7,800	137.8	1,075,100	2,789,500
Marion	8,500	8,200	3,400	89.1	303,100	786,400
Rice	9,000	8,900	8,000	150.7	1,205,800	3,128,700
Rush	800	600	200	110.0	22,000	57,100
Russell	360	300	300	55.0	16,500	42,800
Saline	4,000	3,800	1,900	98.9	187,900	487,500
District total	50,900	49,400	30,300	124.3	3,767,800	9,776,000

CORN, 1981—*Concluded*

County	All Corn		Corn for Grain			
	Acres planted	Acres harvested	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
South Central District:						
Barber	300	300	200	91.5	18,300	48,200
Comanche	300	300	200	142.0	28,400	74,800
Edwards	16,500	16,300	14,700	129.7	1,907,000	5,024,000
Harper	200	200	200	142.0	28,400	74,800
Harvey	7,000	7,000	5,500	110.5	607,800	1,601,300
Kingman	1,500	1,500	1,500	137.3	206,000	542,700
Kiowa	7,700	7,700	6,900	143.1	987,300	2,601,100
Pawnee	8,000	7,700	6,200	141.0	874,500	2,303,900
Pratt	14,700	14,100	13,600	145.0	1,972,000	5,195,300
Reno	5,100	4,800	600	108.3	65,000	171,200
Sedgwick	5,900	5,600	3,800	136.8	520,000	1,369,900
Stafford	13,000	12,900	11,700	134.7	1,576,000	4,152,000
Sumner	1,200	1,200	200	142.0	28,400	74,800
District total	81,400	79,600	65,300	135.1	8,819,100	23,234,000
Northeast District:						
Atchison	17,000	16,900	16,100	95.4	1,535,400	3,876,000
Brown	61,000	60,900	56,400	100.5	5,666,800	14,305,200
Doniphan	65,000	64,600	62,800	114.2	7,171,800	18,104,400
Jackson	11,000	10,900	10,500	90.1	946,000	2,388,100
Jefferson	21,800	21,300	19,900	99.9	1,988,400	5,019,500
Leavenworth	14,500	14,400	11,400	89.6	1,022,000	2,579,900
Marshall	8,000	7,800	7,200	84.2	606,200	1,530,300
Nemaha	24,000	23,400	15,600	93.0	1,450,500	3,661,600
Pottawatomie	15,400	15,300	12,100	114.2	1,382,000	3,488,700
Riley	7,500	7,200	5,200	112.9	587,000	1,481,800
Wyandotte	2,500	2,500	2,300	106.0	243,800	615,500
District total	247,700	245,200	219,500	103.0	22,599,900	57,051,000
East Central District:						
Anderson	18,600	18,400	18,000	100.6	1,811,200	4,644,800
Chase	2,500	2,500	1,500	99.5	149,300	382,900
Coffey	7,000	6,900	6,100	104.7	638,700	1,637,900
Douglas	20,200	19,800	18,000	101.0	1,818,200	4,662,700
Franklin	17,300	17,100	14,200	106.2	1,507,500	3,865,900
Geary	2,000	1,900	1,400	109.5	153,300	393,100
Johnson	10,500	10,300	10,000	92.5	925,000	2,372,100
Linn	5,000	4,800	3,700	98.4	364,000	933,500
Lyon	13,100	13,100	9,200	93.8	862,900	2,212,900
Miami	11,600	11,200	9,800	94.3	924,000	2,369,600
Morris	3,100	3,100	2,100	99.2	208,300	534,200
Osage	5,300	5,200	4,000	98.5	393,800	1,009,900
Shawnee	30,000	30,000	29,400	106.1	3,120,000	8,001,100
Wabaunsee	10,400	10,300	7,900	91.6	723,500	1,855,400
District total	156,600	154,600	135,300	100.5	13,599,700	34,876,000
Southeast District:						
Allen	8,800	8,700	6,800	85.0	578,000	1,592,200
Bourbon	7,500	7,200	6,300	82.1	517,000	1,424,100
Butler	5,600	5,500	3,200	86.5	276,700	762,200
Chautauqua	500	500	400	60.3	24,100	66,400
Cherokee	3,300	3,200	3,100	89.8	278,400	766,900
Cowley	600	600	400	65.3	26,100	71,900
Crawford	7,000	6,800	5,400	80.0	432,000	1,190,000
Elk	300	300	300	45.0	13,500	37,200
Greenwood	3,000	3,000	1,000	95.1	95,100	262,000
Labette	4,300	4,200	3,200	71.3	228,200	628,600
Montgomery	7,400	7,300	3,700	77.[illegible]	285,200	785,600
Neosho	6,000	5,900	5,600	61.0	341,600	941,000
Wilson	2,100	2,100	1,700	75.0	127,500	351,200
Woodson	1,500	1,400	1,300	70.0	91,000	250,700
District total	57,900	56,700	42,400	78.2	3,314,400	9,130,000
State	1,450,000	1,433,000	1,260,000	126.0	158,760,000	412,776,000

CORN FOR SILAGE, 1980

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
Northwest District:				
Cheyenne	1,500	16.5	25,000	616,200
Decatur	3,000	11.5	34,600	852,900
Graham	2,200	12.0	26,400	650,700
Norton	2,200	11.0	23,800	586,700
Rawlins	900	10.0	9,100	224,300
Sheridan	6,900	16.0	108,800	2,681,900
Sherman	6,500	16.0	105,500	2,600,500
Thomas	3,800	16.5	62,700	1,545,500
District total	27,000	14.5	395,900	9,758,700
West Central District:				
Gove	4,200	15.0	62,300	1,375,700
Greeley				
Lane	3600	15.0	53,100	1,172,600
Logan				
Ness	200	15.5	3,100	68,500
Scott	8,800	12.0	109,900	2,426,600
Trego	600	14.0	7,100	156,800
Wallace	1,800	12.0	20,200	446,100
Wichita	1,300	18.5	23,800	525,600
District total	20,500	13.5	279,500	6,171,900
Southwest District:				
Clark	600	17.5	10,400	229,600
Finney	500	16.5	8,100	178,900
Ford	3,800	16.5	61,900	1,366,900
Grant	900	17.0	15,200	335,600
Gray	13,000	18.5	238,400	5,264,300
Hamilton	200	17.5	3,500	77,300
Haskell	2,400	20.0	48,000	1,059,900
Hodgeman	2,400	20.0	48,000	1,059,900
Kearny	25,200	16.0	404,900	8,941,000
Meade	400	13.5	5,300	117,000
Morton				
Seward	2000	17.0	33,600	741,900
Stanton	1,800	20.0	36,000	794,900
Stevens				
District total	53,200	17.0	913,300	20,167,200
North Central District:				
Clay	4,700	7.0	33,200	750,200
Cloud	2,800	7.0	19,000	429,300
Jewell	3,300	17.5	57,500	1,299,200
Mitchell	1,200	9.0	10,700	241,800
Osborne	3,100	16.5	51,800	1,170,400
Ottawa	1,800	7.5	13,500	305,000
Phillips	1,500	11.5	17,100	386,400
Republic	5,900	7.5	42,800	967,100
Rooks	300	11.0	3,300	74,600
Smith	1,500	12.5	19,100	431,600
Washington	12,000	6.5	79,100	1,787,200
District total	38,100	9.0	347,100	7,842,800
Central District:				
Barton	400	12.5	4,900	110,700
Dickinson	8,300	7.5	63,600	1,437,100
Ellis	500	10.5	5,400	122,000
Ellsworth	400	8.5	3,500	79,100
Lincoln	1,800	7.0	12,300	277,900
McPherson	4,800	10.0	48,700	1,100,400
Marion	7,200	5.5	40,500	915,100
Rice	2,800	9.5	26,900	607,800
Rush	1,900	8.5	16,300	368,300
Russell	400	8.0	3,300	74,600
Saline	3,600	6.5	22,900	517,400
District total	32,100	7.5	248,300	5,610,400

CORN FOR SILAGE, 1980—*Concluded*

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
South Central District:				
Barber	600	13.0	7,900	184,200
Comanche				
Edwards	300	13.0	4,000	93,300
Harper	100	12.0	1,200	28,000
Harvey	4,400	11.0	48,100	1,121,400
Kingman	1,700	17.0	29,100	678,400
Kiowa				
Pawnee	300	15.0	4,600	107,200
Pratt	2,000	16.0	32,500	757,700
Reno	3,600	11.0	39,000	909,200
Sedgwick	2,000	13.5	26,600	620,200
Stafford	2,800	16.0	44,700	1,042,100
Sumner	500	5.0	2,500	58,300
District total	18,300	13.0	240,200	5,600,000
Northeast District:				
Atchison	6,700	10.5	71,800	1,327,400
Brown	11,200	8.5	92,400	1,708,100
Doniphan	2,200	10.0	22,400	414,100
Jackson	7,600	5.0	39,700	733,900
Jefferson	10,300	6.0	59,500	1,100,000
Leavenworth	4,300	8.0	33,600	621,200
Marshall	3,700	9.0	34,000	628,600
Nemaha	15,600	5.0	81,500	1,506,700
Pottawatomie	5,000	11.0	54,100	1,000,100
Riley	5,300	9.0	47,400	876,300
Wyandotte	500	9.5	4,600	85,000
District total	72,400	7.5	541,000	10,001,400
East Central District:				
Anderson	9,600	4.0	37,300	747,000
Chase	4,700	3.5	16,500	330,500
Coffey	8,600	2.5	23,600	472,700
Douglas	12,500	4.0	47,700	955,300
Franklin	12,400	5.5	65,400	1,309,800
Geary	2,300	7.0	15,700	314,400
Johnson	5,200	3.5	17,900	358,500
Linn	3,400	3.5	12,000	240,300
Lyon	13,600	4.5	58,600	1,173,600
Miami	4,800	6.0	28,700	574,800
Morris	3,600	3.5	11,900	238,300
Osage	7,200	6.0	44,100	883,200
Shawnee	9,300	7.0	63,700	1,275,800
Wabaunsee	500	4.0	1,900	38,100
District total	97,700	4.5	445,000	8,912,300
Southeast District:				
Allen	8,100	5.5	43,700	1,077,200
Bourbon	8,600	4.0	35,400	872,600
Butler	5,700	5.5	32,400	798,600
Chautauqua	100	5.0	500	12,300
Cherokee	700	4.0	2,700	66,600
Cowley	1,400	4.0	5,600	138,000
Crawford	3,200	5.5	17,500	431,400
Elk	200	4.0	800	19,700
Greenwood	3,400	5.5	19,300	475,700
Labette	3,800	6.0	22,700	559,500
Montgomery	3,600	5.0	18,600	458,500
Neosho	4,000	5.0	19,100	470,800
Wilson	300	4.0	1,200	29,600
Woodson	1,600	4.0	6,200	152,800
District total	44,700	5.0	225,700	5,563,300
State	404,000	9.0	3,636,000	79,628,000

CORN FOR SILAGE, 1981

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
Northwest District:				
Cheyenne	1,800	16.5	30,000	691,800
Decatur	1,400	16.0	22,400	516,600
Graham	100	17.0	1,700	39,200
Norton	400	18.0	7,200	166,000
Rawlins	100	20.0	2,000	46,100
Sheridan	4,800	16.5	79,900	1,842,500
Sherman	4,600	19.0	87,700	2,022,500
Thomas	3,300	23.5	77,300	1,782,600
District total	16,500	18.5	308,200	7,107,300
West Central District:				
Gove	4,800	21.5	103,100	1,964,100
Greeley	1,600	23.0	36,400	693,400
Lane	2,500	20.5	51,500	981,100
Logan	2,000	23.5	47,100	897,300
Ness	100	18.0	1,800	34,300
Scott	600	16.5	9,900	188,600
Trego	7,900	20.0	156,600	2,983,100
Wallace	4,000	21.0	83,400	1,588,800
Wichita	23,500	21.0	489,800	9,330,700
District total				
Southwest District:				
Clark	200	20.0	4,000	82,200
Finney	3,600	19.0	69,200	1,422,300
Ford	3,100	20.0	62,700	1,288,700
Grant	2,200	18.5	41,100	844,800
Gray	2,500	22.5	55,800	1,146,900
Hamilton	400	21.0	8,400	172,700
Haskell	3,800	22.0	84,400	1,734,700
Hodgeman	3,600	21.5	78,200	1,607,300
Kearny	2,700	20.0	53,400	1,097,600
Meade	200	21.0	4,200	86,300
Morton	4,500	21.5	97,200	1,997,900
Seward				
Stanton				
Stevens				
District total	26,800	21.0	558,600	11,481,400
North Central District:				
Clay	1,700	19.0	32,500	619,100
Cloud	500	19.5	9,800	186,700
Jewell	2,100	15.0	31,000	590,500
Mitchell	100	19.0	1,900	36,200
Osborne	300	18.5	5,500	104,800
Ottawa	2,500	15.0	36,900	703,000
Phillips	200	15.0	3,000	57,100
Republic	1,300	14.0	18,200	346,700
Rooks	300	12.5	3,700	70,500
Smith	500	16.0	7,900	150,500
Washington	2,200	15.5	34,400	655,300
District total	11,700	16.0	184,800	3,520,400
Central District:				
Barton	4,400	15.5	69,200	1,387,600
Dickinson	3,900	13.5	52,000	1,042,700
Ellis	300	19.5	5,800	116,300
Ellsworth	100	13.0	1,300	26,100
Lincoln	500	14.5	7,200	144,400
McPherson	1,900	20.5	39,200	786,100
Marion	4,700	15.0	70,200	1,407,700
Rice	900	19.5	17,700	354,900
Rush	400	20.5	8,200	164,400
Russell	1,900	18.5	35,200	705,900
Saline				
District total	19,000	16.0	306,000	6,136,100

CORN FOR SILAGE, 1981—*Concluded*

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
South Central District:				
Barber	100	17.0	1,700	34,900
Comanche	100	17.0	1,700	34,900
Edwards	1,500	18.0	27,300	561,100
Harper				
Harvey	1,500	18.5	28,100	577,600
Kingman				
Kiowa	800	16.0	12,700	261,000
Pawnee	1,500	18.5	28,000	575,500
Pratt	500	19.0	9,500	195,300
Reno	4,000	15.5	62,800	1,291,000
Sedgwick	1,800	13.5	24,600	505,600
Stafford	1,200	18.0	21,700	446,000
Sumner	1,000	10.0	10,000	205,500
District total	14,000	16.5	228,100	4,688,400
Northeast District:				
Atchison	800	11.0	8,800	158,800
Brown	4,500	14.0	63,900	1,153,200
Doniphan	1,800	17.0	30,900	557,700
Jackson	400	14.5	5,700	102,900
Jefferson	1,300	14.0	18,200	328,500
Leavenworth	3,000	14.0	41,700	752,600
Marshall	600	14.0	8,500	153,400
Nemaha	7,800	14.0	108,500	1,958,000
Pottawatomie	3,200	16.0	50,600	913,200
Riley	2,000	15.5	31,000	559,500
Wyandotte	200	17.0	3,400	61,400
District total	25,600	14.5	371,200	6,699,200
East Central District:				
Anderson	300	11.5	3,500	66,700
Chase	1,000	15.5	15,500	295,300
Coffey	800	14.5	11,400	217,200
Douglas	1,600	15.0	23,900	455,300
Franklin	2,900	14.5	41,400	788,700
Geary	500	17.0	8,600	163,800
Johnson	200	18.0	3,600	68,600
Linn	1,100	11.5	12,700	241,900
Lyon	3,900	15.0	58,900	1,122,000
Miami	1,400	14.0	19,600	373,400
Morris	1,000	17.0	16,800	320,000
Osage	1,200	13.0	15,700	299,100
Shawnee	600	16.0	9,700	184,800
Wabaunsee	2,400	13.5	32,300	615,300
District total	18,900	14.5	273,600	5,212,100
Southeast District:				
Allen	1,800	13.5	24,700	569,600
Bourbon	900	11.0	10,000	230,600
Butler	2,300	11.0	25,800	595,000
Chautauqua	100	12.0	1,200	27,700
Cherokee	100	11.0	1,100	25,400
Cowley	200	12.0	2,400	55,300
Crawford	1,300	12.5	16,500	380,500
Elk				
Greenwood	2,000	15.5	30,900	712,600
Labette	1,000	10.0	10,000	230,600
Montgomery	3,500	11.5	39,500	910,800
Neosho	300	9.0	2,700	62,300
Wilson	400	9.0	3,600	83,000
Woodson	100	13.0	1,300	30,000
District total	14,000	12.0	169,700	3,913,400
State	170,000	17.0	2,890,000	58,089,000

CORN FOR GRAIN—IRRIGATED AND DRYLAND, 1980

County	Irrigated			Dryland		
	Acres harvested	Yield per acre, bushels	Production, bushels	Acres harvested	Yield per acre, bushels	Production, bushels
Northwest District:						
Cheyenne	18,200	97.7	1,779,000			
Decatur	7,100	86.1	611,200	1,000	27.5	27,500
Graham	2,200	84.9	186,700			
Norton	3,200	110.8	354,700			
Rawlins	4,300	119.2	512,400			
Sheridan	37,500	124.4	4,666,000			
Sherman	46,300	105.1	4,864,000			
Thomas	48,100	118.8	5,715,000	1,100	27.5	30,200
District total	166,900	112.0	18,689,000	2,100	27.5	57,700
West Central District:						
Gove	4,400	91.1	400,700			
Greeley	11,000	108.6	1,195,000			
Lane	2,800	106.6	298,500			
Logan	7,500	106.7	800,200			
Ness	200	76.0	15,200			
Scott	19,400	97.5	1,891,000			
Trego	600	59.0	35,400			
Wallace	40,400	87.7	3,545,000			
Wichita	40,000	105.0	4,200,000			
District total	126,300	98.0	12,381,000			
Southwest District:						
Clark	200	105.0	21,000			
Finney	89,000	126.2	11,232,900			
Ford	26,000	97.2	2,526,000			
Grant	32,000	136.9	4,381,000			
Gray	64,500	127.2	8,203,000	500	40.8	20,400
Hamilton	5,000	110.2	551,200			
Haskell	85,400	130.7	11,164,000	600	40.5	24,300
Hodgeman	1,900	95.2	180,800			
Kearny	16,400	118.4	1,942,000			
Meade	18,500	112.5	2,082,000	100	41.0	4,100
Morton	4,700	112.2	527,500			
Seward	12,000	110.0	1,322,000			
Stanton	37,700	109.7	4,136,000			
Stevens	19,000	112.8	2,144,000	200	40.5	8,100
District total	412,300	122.3	50,413,400	1,400	40.6	56,900
North Central District:						
Clay	9,100	83.8	763,000			
Cloud	6,600	60.5	399,500	500	26.2	13,100
Jewell	5,200	111.1	577,600			
Mitchell	2,100	75.0	157,500			
Osborne	700	105.0	73,500			
Ottawa	400	65.0	26,000			
Phillips	3,500	68.6	240,200			
Republic	32,000	97.8	3,129,000	3,600	21.9	75,700
Rooks	100	89.0	8,900			
Smith	3,800	104.0	395,300			
Washington	4,800	68.0	326,500	3,800	29.5	112,100
District total	68,300	89.3	6,097,000	7,900	25.4	200,900
Central District:						
Barton	9,900	86.9	860,700			
Dickinson	400	85.3	34,100	900	29.4	26,500
Ellis						
Ellsworth						
Lincoln						
McPherson	6,800	82.4	560,000			
Marion						
Rice	6,700	94.4	632,400	100	30.0	3,000
Rush						
Russell	100	88.0	8,800			
Saline						
District total	23,900	87.7	2,096,000	1,000	29.5	29,500

CORN FOR GRAIN—IRRIGATED AND DRYLAND, 1980—*Concluded*

County	Irrigated			Dryland		
	Acres harvested	Yield per acre, bushels	Production, bushels	Acres harvested	Yield per acre, bushels	Production, bushels
South Central District:						
Barber						
Comanche						
Edwards	17,700	115.5	2,045,000			
Harper						
Harvey	4,500	87.2	392,200			
Kingman						
Kiowa	8,300	100.4	833,500	200	70.0	14,000
Pawnee	8,300	106.9	887,300			
Pratt	18,000	106.3	1,913,000			
Reno	3,600	71.5	257,400	1,200	69.9	83,900
Sedgwick	11,700	87.5	1,024,000	200	72.0	14,400
Stafford	12,100	96.8	1,171,000			
Sumner	800	90.8	72,600	700	66.9	46,800
District total	85,000	101.1	8,596,000	2,300	69.2	159,100
Northeast District:						
Atchison				17,200	32.2	553,100
Brown	700	75.9	53,100	51,000	33.5	1,709,000
Doniphan	1,800	75.3	135,500	63,600	70.8	4,502,000
Jackson	400	76.8	30,700	6,500	26.5	172,200
Jefferson	2,100	84.2	176,800	20,000	22.2	443,200
Leavenworth				14,400	40.4	581,200
Marshall	1,500	59.5	89,200	3,200	32.2	102,900
Nemaha				11,700	28.8	337,200
Pottawatomie	10,500	79.3	832,200	3,500	30.1	105,500
Riley	700	77.9	54,500	1,400	15.1	21,100
Wyandotte				1,600	20.4	32,600
District total	17,700	77.5	1,372,000	194,100	44.1	8,560,000
East Central District:						
Anderson	900	51.0	45,900	5,100	16.3	83,100
Chase	300	51.3	15,400	200	20.5	4,100
Coffey	600	51.0	30,600	1,500	19.1	28,600
Douglas	300	51.0	15,300	11,100	27.8	308,600
Franklin	1,200	54.6	65,500	1,600	27.3	43,600
Geary	200	45.0	9,000			
Johnson	100	51.0	5,100	4,100	20.1	82,300
Linn				900	40.1	36,100
Lyon	900	87.3	78,600	900	42.8	38,500
Miami	200	45.0	9,000	800	17.0	13,600
Morris				700	30.1	21,100
Osage	300	60.3	18,100	1,900	30.2	57,300
Shawnee	8,900	56.1	499,700	7,500	13.0	97,800
Wabaunsee	1,300	50.8	66,100			
District total	15,200	56.5	858,300	36,300	22.4	814,700
Southeast District:						
Allen				300	36.0	10,800
Bourbon				2,100	28.7	60,300
Butler						
Chautauqua				400	19.5	7,800
Cherokee	100	76.0	7,600	2,400	18.5	44,300
Cowley						
Crawford	300	87.0	26,100	1,600	16.4	26,200
Elk						
Greenwood	200	63.0	12,600	100	15.0	1,500
Labette	800	71.9	57,500	1,500	31.8	47,700
Montgomery	500	75.8	37,900	4,100	17.4	71,400
Neosho	100	52.0	5,200	200	25.0	5,000
Wilson	300	76.0	22,800	3,300	19.5	64,300
Woodson	100	76.0	7,600	900	24.3	21,900
District total	2,400	73.9	177,300	16,900	21.4	361,200
State	918,600	109.7	100,680,000	262,000	39.1	10,240,000

CORN FOR GRAIN—IRRIGATED AND DRYLAND, 1981

County	Irrigated			Dryland		
	Acres harvested	Yield per acre, bushels	Production, bushels	Acres harvested	Yield per acre, bushels	Production, bushels
Northwest District:						
Cheyenne	15,000	144.5	2,168,000			
Decatur	6,800	142.1	966,000	3,800	72.4	275,000
Graham	3,700	141.4	523,000	200	50.0	10,000
Norton	3,600	146.2	526,300	500	50.0	25,000
Rawlins	2,300	141.3	325,000	100	85.0	8,500
Sheridan	29,900	160.6	4,803,000			
Sherman	46,600	126.4	5,889,000	2,100	98.1	206,100
Thomas	42,800	148.5	6,355,000			
District total	150,700	143.0	21,555,[illegible]	6,700	78.3	524,600
West Central District:						
Gove	3,600	135.0	486,000			
Greeley	12,400	129.0	1,599,000			
Lane	2,800	130.4	365,000			
Logan	6,000	150.0	900,000			
Ness	300	110.0	33,000			
Scott	20,000	136.1	2,722,000			
Trego	800	131.3	105,000	200	81.0	16,200
Wallace	36,500	131.5	4,798,000			
Wichita	35,600	134.1	4,773,000			
District total	118,000	133.7	15,781,000	200	81.0	16,200
Southwest District:						
Clark	100	148.0	14,800			
Finney	79,000	140.2	11,079,000	5,900	49.2	290,000
Ford	29,600	141.0	4,173,600			
Grant	22,200	160.3	3,558,000			
Gray	67,500	147.9	9,982,000			
Hamilton	4,500	129.3	582,000			
Haskell	76,300	155.5	11,865,700			
Hodgeman	1,400	149.3	209,000			
Kearny	33,000	136.8	4,516,000			
Meade	14,600	140.0	2,044,000	200	62.5	12,500
Morton	2,600	160.0	416,000	200	62.5	12,500
Seward	8,700	157.2	1,368,000			
Stanton	38,000	137.0	5,206,000			
Stevens	13,400	135.1	1,811,000			
District total	390,900	145.4	56,825,100	6,300	50.0	315,000
North Central District:						
Clay	6,600	140.0	924,000	1,700	82.4	140,000
Cloud	7,900	140.0	1,106,000	1,100	93.6	103,000
Jewell	5,100	136.7	697,000	600	76.5	45,900
Mitchell	1,400	137.1	192,000	400	60.0	24,000
Osborne	1,400	115.0	161,000	300	72.3	21,700
Ottawa	700	130.4	91,300			
Phillips	3,700	153.8	569,000	400	62.0	24,800
Republic	34,600	130.4	4,512,000	5,800	74.3	431,000
Rooks	700	123.9	86,700			
Smith	2,100	145.0	304,500	200	70.0	14,000
Washington	6,500	136.3	886,000	13,200	99.1	1,308,000
District total	70,700	134.8	9,529,500	23,700	89.1	2,112,400
Central District:						
Barton	4,000	133.0	532,000			
Dickinson	700	116.7	81,700	3,300	80.6	266,000
Ellis	400	129.8	51,900			
Ellsworth	100	140.0	14,000			
Lincoln				200	59.0	11,800
McPherson	7,600	139.2	1,058,000	200	85.5	17,100
Marion	400	130.3	52,100	3,000	83.7	251,000
Rice	8,000	150.7	1,205,800			
Rush	200	110.0	22,000			
Russell				300	55.0	16,500
Saline	100	119.0	11,900	1,800	97.8	176,000
District total	21,500	140.9	3,029,400	8,800	83.9	738,400

CORN FOR GRAIN—IRRIGATED AND DRYLAND, 1981—*Concluded*

County	Irrigated			Dryland		
	Acres harvested	Yield per acre, bushels	Production, bushels	Acres harvested	Yield per acre, bushels	Production, bushels
South Central District:						
Barber	100	128.0	12,800	100	55.0	5,500
Comanche	200	142.0	28,400			
Edwards	14,700	129.7	1,907,000			
Harper	200	142.0	28,400			
Harvey	4,800	120.6	579,000	700	41.1	28,800
Kingman	1,300	150.0	195,000	200	55.0	11,000
Kiowa	6,400	150.0	960,000	500	54.6	27,300
Pawnee	6,100	142.5	869,000	100	55.0	5,500
Pratt	12,900	149.9	1,934,000	700	54.3	38,000
Reno	400	125.0	50,000	200	75.0	15,000
Sedgwick	3,800	136.8	520,000			
Stafford	11,700	134.7	1,576,000			
Sumner	200	142.0	28,400			
District total	62,800	138.3	8,688,000	2,500	52.4	131,100
Northeast District:						
Atchison	200	124.5	24,900	15,900	95.0	1,510,500
Brown				56,400	100.5	5,666,800
Doniphan	5,400	116.5	629,000	57,400	114.0	6,542,800
Jackson	400	110.0	44,000	10,100	89.3	902,000
Jefferson	500	112.8	56,400	19,400	99.6	1,932,000
Leavenworth				11,400	89.6	1,022,000
Marshall	800	107.8	86,200	6,400	81.3	520,000
Nemaha	100	125.0	12,500	15,500	92.8	1,438,000
Pottawatomie	5,700	141.4	806,000	6,400	90.0	576,000
Riley	2,200	126.4	278,000	3,000	103.0	309,000
Wyandotte				2,300	106.0	243,800
District total	15,300	126.6	1,937,000	204,200	101.2	20,662,900
East Central District:						
Anderson	400	145.5	58,200	17,600	99.6	1,753,000
Chase	200	121.5	24,300	1,300	96.2	125,000
Coffey	200	155.0	31,000	5,900	103.0	607,700
Douglas	200	145.0	29,000	17,800	100.5	1,789,200
Franklin	1,700	129.4	220,000	12,500	103.0	1,287,500
Geary	400	133.8	53,500	1,000	99.8	99,800
Johnson				10,000	92.5	925,000
Linn				3,700	98.4	364,000
Lyon	200	129.5	25,900	9,000	93.0	837,000
Miami				9,800	94.3	924,000
Morris	100	103.0	10,300	2,000	99.0	198,000
Osage	200	114.0	22,800	3,800	97.6	371,000
Shawnee	15,500	118.1	1,830,000	13,900	92.8	1,290,000
Wabaunsee	800	150.0	120,000	7,100	85.0	603,500
District Total	19,900	121.9	2,425,000	115,400	96.8	11,174,700
Southeast District:						
Allen				6,800	85.0	578,000
Bourbon				6,300	82.1	517,000
Butler	100	132.0	13,200	3,100	85.0	263,500
Chautauqua				400	60.3	24,100
Cherokee	100	130.0	13,000	3,000	88.5	265,400
Cowley	100	135.0	13,500	300	42.0	12,600
Crawford				5,400	80.0	432,000
Elk				300	45.0	13,500
Greenwood	200	111.5	22,300	860	91.0	72,800
Labette	500	100.0	50,000	2,700	66.0	178,200
Montgomery	200	113.5	22,700	3,500	75.0	262,500
Neosho				5,600	61.0	341,600
Wilson				1,700	75.0	127,500
Woodson				1,300	70.0	91,000
District Total	1,200	112.3	134,700	41,200	77.2	3,179,700
State	851,000	140.9	119,905,000	409,000	95.0	38,855,000

OATS, 1980

County	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District:					
Cheyenne	500	250	28.8	7,200	13,100
Decatur	500	460	34.1	15,700	28,600
Graham	800	480	35.8	17,200	31,300
Norton	1,300	400	33.3	13,300	24,200
Rawlins	1,100	390	42.1	16,400	29,800
Sheridan	600	300	44.0	13,200	24,000
Sherman	500	430	24.4	10,500	19,100
Thomas	1,400	690	29.5	20,500	37,300
District total	6,700	3,400	33.5	114,000	207,400
West Central District:					
Gove	900	260	26.5	6,900	12,700
Greeley	400	180	34.4	6,200	11,400
Lane	300	260	44.6	11,600	21,400
Logan	300	250	24.4	6,100	11,200
Ness	100	50	34.0	1,700	3,100
Scott	200	100	35.0	3,500	6,400
Trego	300	140	39.3	5,500	10,100
Wallace	200	160	34.4	5,500	10,100
Wichita	200	100	40.0	4,000	7,400
District total	2,900	1,500	34.0	51,000	93,800
Southwest District:					
Clark	300	240	42.5	10,200	18,600
Finney	600	290	42.8	12,400	22,600
Ford	2,000	600	42.5	25,500	46,500
Grant	300	150	42.0	6,300	11,500
Gray	1,500	420	41.7	17,500	31,800
Hamilton	800	390	50.8	19,800	36,000
Haskell	200	60	45.0	2,700	4,900
Hodgeman	300	150	43.3	6,500	11,800
Kearny	100	50	40.0	2,000	3,600
Meade	300	150	43.3	6,500	11,800
Morton	300	150	35.3	5,300	9,600
Seward	700	410	40.7	16,700	30,400
Stanton	500	290	42.8	12,400	22,600
Stevens	100	50	44.0	2,200	4,000
District total	8,000	3,400	42.9	146,000	265,700
North Central District:					
Clay	2,400	1,860	37.1	69,000	125,600
Cloud	1,900	1,290	50.4	65,000	118,300
Jewell	1,500	1,010	29.8	30,100	54,800
Mitchell	700	600	42.0	25,200	45,900
Osborne	800	690	39.1	27,000	49,100
Ottawa	1,100	900	36.8	33,100	60,200
Phillips	800	610	39.7	24,200	44,000
Republic	2,400	1,980	30.3	60,000	109,200
Rooks	500	290	38.6	11,200	20,400
Smith	700	600	30.3	18,200	33,100
Washington	3,800	3,470	43.2	150,000	272,900
District total	16,600	13,300	38.6	513,000	933,500
Central District:					
Barton	1,000	480	30.0	14,400	26,800
Dickinson	8,000	5,380	31.4	169,000	314,400
Ellis	200	180	32.8	5,900	11,000
Ellsworth	900	350	27.7	9,700	18,000
Lincoln	1,500	1,160	35.2	40,800	75,900
McPherson	3,300	2,540	40.6	103,000	191,600
Marion	6,000	4,040	25.2	102,000	189,800
Rice	1,100	810	32.3	26,200	48,700
Rush	300	250	30.0	7,500	14,000
Russell	400	320	45.3	14,500	27,000
Saline	2,200	1,590	37.1	59,000	109,800
District total	24,900	17,100	32.3	552,000	1,027,000

OATS, 1980—*Concluded*

County	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
South Central District:					
Barber	2,000	1,070	41.9	44,800	85,200
Comanche	300	150	50.7	7,600	14,500
Edwards	600	280	30.4	8,500	16,200
Harper	1,300	370	40.5	15,000	28,500
Harvey	2,500	1,580	27.6	43,600	82,900
Kingman	5,500	2,120	35.4	75,000	142,400
Kiowa	800	690	35.5	24,500	46,600
Pawnee	300	150	35.3	5,300	10,100
Pratt	1,200	650	34.5	22,400	42,600
Reno	3,800	1,090	31.5	34,300	65,200
Sedgwick	2,300	660	56.1	37,000	70,400
Stafford	1,700	1,550	39.4	61,000	116,000
Sumner	2,000	1,740	37.4	65,000	123,600
District total	24,300	12,100	36.7	444,000	844,200
Northeast District:					
Atchison	1,900	1,290	30.9	39,800	78,500
Brown	2,800	2,420	47.9	116,000	228,900
Doniphan	900	650	51.5	33,500	66,100
Jackson	3,200	2,650	44.9	119,000	234,800
Jefferson	2,400	1,380	38.4	53,000	104,600
Leavenworth	1,900	1,400	39.3	55,000	108,500
Marshall	3,000	2,040	35.8	73,000	144,000
Nemaha	3,000	1,460	33.4	48,800	96,300
Pottawatomie	2,000	1,450	28.1	40,800	80,500
Riley	1,300	380	49.5	18,800	37,100
Wyandotte	100	80	53.8	4,300	8,500
District total	22,500	15,200	39.6	602,000	1,187,800
East Central District:					
Anderson	3,500	2,880	37.2	107,000	214,400
Chase	1,000	680	30.9	21,000	42,100
Coffey	1,300	760	29.9	22,700	45,500
Douglas	3,000	2,610	49.4	129,000	258,300
Franklin	3,600	2,610	39.1	102,000	204,400
Geary	1,400	1,290	34.0	43,800	87,800
Johnson	1,400	1,280	48.4	62,000	124,200
Linn	2,100	1,830	45.4	83,000	166,300
Lyon	2,100	1,520	27.3	41,500	83,200
Miami	2,200	1,920	41.7	80,000	160,300
Morris	3,200	2,950	27.8	82,000	164,300
Osage	2,200	1,930	37.8	73,000	146,300
Shawnee	1,200	940	44.7	42,000	84,200
Wabaunsee	2,300	1,900	30.0	57,000	114,200
District total	30,500	25,100	37.7	946,000	1,895,500
Southeast District:					
Allen	2,600	2,010	29.9	60,000	122,700
Bourbon	2,000	1,450	40.7	59,000	120,600
Butler	3,200	2,480	37.9	94,000	192,200
Chautauqua	1,500	1,240	45.2	56,000	114,500
Cherokee	1,300	1,130	49.6	56,000	114,500
Cowley	2,500	1,930	53.9	104,000	212,600
Crawford	4,500	3,840	44.0	169,000	345,500
Elk	1,500	1,090	47.7	52,000	106,300
Greenwood	2,700	1,040	38.2	39,700	81,200
Labette	6,500	4,720	43.2	204,000	417,100
Montgomery	2,700	2,090	35.9	75,000	153,300
Neosho	5,000	3,870	37.0	143,000	292,400
Wilson	1,600	1,240	39.3	48,700	99,600
Woodson	1,000	770	41.0	31,600	64,600
District total	38,600	28,900	41.2	1,192,000	2,437,100
State	175,000	120,000	38.0	4,560,000	8,892,000

OATS, 1981

County	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District:					
Cheyenne	500	230	47.4	10,900	22,100
Decatur	700	320	43.4	13,900	28,200
Graham	1,100	510	47.3	24,100	48,800
Norton	1,600	760	44.2	33,600	68,100
Rawlins	1,400	720	38.1	27,400	41,300
Sheridan	800	530	39.6	21,000	42,600
Sherman	600	420	37.9	15,900	32,200
Thomas	1,700	510	47.3	24,100	48,800
District total	8,400	4,000	42.7	170,900	332,100
West Central District:					
Gove	1,300	920	45.3	41,700	81,100
Greeley	500	270	42.6	11,500	22,300
Lane	300	220	47.3	10,400	20,200
Logan	400	220	42.3	9,300	18,100
Ness	100	50	42.0	2,100	4,100
Scott	300	220	42.3	9,300	18,100
Trego	300	200	42.5	8,500	16,500
Wallace	300	150	42.7	6,400	12,400
Wichita	300	150	42.7	6,400	12,400
District total	3,800	2,400	44.0	105,600	205,200
Southwest District:					
Clark	400	220	35.0	7,700	14,200
Finney	800	450	34.9	15,700	29,000
Ford	3,000	1,630	38.0	62,000	114,500
Grant	400	220	35.0	7,700	14,200
Gray	2,100	1,180	36.5	43,100	79,600
Hamilton	1,100	620	34.8	21,600	39,900
Haskell	200	150	28.7	4,300	7,900
Hodgeman	400	220	35.0	7,700	14,200
Kearny	100	60	35.0	2,100	3,900
Meade	400	260	35.0	9,100	16,800
Morton	400	220	35.0	7,700	14,200
Seward	900	630	34.8	21,900	40,400
Stanton	700	380	35.0	13,300	24,600
Stevens	100	60	35.0	2,100	3,900
District total	11,000	6,300	35.9	226,000	417,300
North Central District:					
Clay	3,800	2,640	53.8	142,000	278,700
Cloud	2,900	2,250	65.3	147,000	288,600
Jewell	2,300	1,620	64.2	104,000	204,100
Mitchell	1,000	600	53.8	32,300	63,400
Osborne	1,100	940	55.3	52,000	102,100
Ottawa	1,800	1,250	53.6	67,000	131,500
Phillips	1,300	1,010	35.1	35,500	69,700
Republic	2,600	2,200	56.8	125,000	245,400
Rooks	600	530	33.0	17,500	34,400
Smith	1,100	860	62.8	54,000	106,000
Washington	5,800	5,000	58.6	293,000	575,100
District total	24,300	18,900	56.6	1,069,300	2,099,000
Central District:					
Barton	1,000	710	37.7	26,800	54,300
Dickinson	10,900	8,580	54.7	469,000	950,100
Ellis	200	160	51.9	8,300	16,800
Ellsworth	1,600	950	48.4	46,000	93,200
Lincoln	2,300	1,640	63.2	103,600	226,900
McPherson	3,200	2,000	36.0	72,000	145,900
Marion	9,800	5,700	45.3	258,000	522,700
Rice	1,200	800	50.0	40,000	81,000
Rush	300	210	51.9	10,900	22,100
Russell	700	600	43.5	26,100	52,900
Saline	2,100	1,650	52.1	86,000	174,200
District total	32,300	23,000	49.9	1,146,700	2,340,100

OATS, 1981—*Concluded*

County	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
South Central District:					
Barber	2,300	900	35.0	31,500	58,300
Comanche	300	130	38.5	5,000	9,300
Edwards	600	250	34.0	8,500	13,100
Harper	2,100	800	29.3	23,400	43,300
Harvey	2,700	1,180	47.5	56,000	103,700
Kingman	5,900	2,570	47.1	121,000	224,000
Kiowa	1,400	610	35.9	21,900	40,500
Pawnee	300	150	54.0	8,100	15,000
Pratt	1,200	650	31.2	20,300	37,600
Reno	5,600	2,440	43.4	106,000	196,200
Sedgwick	3,300	1,250	48.0	60,000	111,100
Stafford	1,800	780	38.7	30,200	55,900
Sumner	2,800	1,490	31.3	46,600	86,300
District total	30,300	13,200	40.8	538,500	994,300
Northeast District:					
Atchison	2,800	2,470	46.2	114,000	224,600
Brown	4,200	4,100	65.1	267,000	526,000
Doniphan	1,000	900	64.4	58,000	114,300
Jackson	4,800	4,250	66.3	281,900	555,300
Jefferson	2,800	2,410	47.3	114,000	224,600
Leavenworth	2,900	2,610	55.6	145,000	285,600
Marshall	4,800	4,600	54.8	252,000	496,400
Nemaha	3,200	2,480	55.6	138,000	271,900
Pottawatomie	3,300	2,480	52.0	129,000	254,100
Riley	1,300	1,110	46.8	52,000	102,400
Wyandotte	100	90	51.1	4,600	9,100
District total	31,200	27,500	56.6	1,555,500	3,064,300
East Central District:					
Anderson	3,500	2,900	39.7	115,000	223,500
Chase	1,600	1,280	44.5	57,000	110,800
Coffey	1,400	1,080	42.6	46,000	89,400
Douglas	4,800	3,890	54.8	213,000	414,000
Franklin	4,000	3,200	48.1	154,000	299,300
Geary	2,200	2,010	54.7	110,000	213,800
Johnson	2,200	1,760	57.4	101,000	196,300
Linn	3,200	2,570	50.2	129,000	250,700
Lyon	3,200	2,100	40.5	85,000	165,200
Miami	3,300	2,650	49.1	130,000	252,700
Morris	4,700	3,860	56.7	219,000	425,500
Osage	3,400	2,750	48.0	132,000	256,500
Shawnee	2,100	1,700	51.2	87,000	169,100
Wabaunsee	2,300	1,850	49.2	91,000	176,900
District total	41,900	33,600	49.7	1,669,000	3,243,700
Southeast District:					
Allen	3,900	3,450	46.4	160,000	307,500
Bourbon	3,000	2,170	44.2	96,000	184,500
Butler	4,700	3,000	37.7	113,000	217,200
Chautauqua	1,600	1,160	46.6	54,000	103,800
Cherokee	1,700	1,500	56.7	85,000	163,300
Cowley	4,000	2,200	47.3	104,000	199,900
Crawford	6,700	5,050	58.6	296,000	568,800
Elk	2,300	1,670	39.5	66,000	126,800
Greenwood	4,000	2,200	51.8	114,000	219,100
Labette	10,700	8,560	51.9	444,100	853,400
Montgomery	4,000	2,850	42.5	121,000	232,500
Neosho	6,500	4,700	51.9	244,000	468,900
Wilson	2,200	1,590	46.5	74,000	142,200
Woodson	1,500	1,000	47.4	47,400	91,100
District total	56,800	41,100	49.1	2,018,500	3,879,000
State	240,000	170,000	50.0	8,500,000	16,575,000

SOYBEANS, 1980

County	Acres planted	Acres harvested for beans	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District:					
Cheyenne	1,600	1,600	31.9	51,000	367,300
Decatur					
Graham	100	100	33.0	3,300	23,800
Norton					
Rawlins	300	300	30.7	9,200	66,300
Sheridan	2,900	2,700	30.9	83,300	600,000
Sherman	1,300	1,200	33.9	40,700	293,100
Thomas	600	500	36.0	18,000	129,600
District total	6,800	6,400	32.1	205,500	1,480,100
West Central District:					
Gove	300	300	29.7	8,900	65,000
Greeley					
Lane	300	300	26.0	7,800	57,000
Logan					
Ness	100	100	22.0	2,200	16,100
Scott	1,300	1,200	27.7	33,200	242,400
Trego	100	100	30.0	3,000	21,900
Wallace	400	400	39.8	15,900	116,100
Wichita	700	700	32.9	23,000	167,900
District total	3,200	3,100	30.3	94,000	686,400
Southwest District:					
Clark					
Finney	1,300	1,200	40.8	48,900	363,900
Ford	3,600	3,400	34.7	118,000	878,200
Grant	2,800	2,600	38.8	101,000	751,700
Gray	5,900	5,400	37.6	203,000	1,510,800
Hamilton					
Haskell	3,500	3,300	28.5	94,200	701,100
Hodgeman	300	300	29.7	8,900	66,200
Kearny	900	900	34.8	31,300	233,000
Meade	3,300	3,000	29.6	88,700	660,200
Morton	200	200	34.5	6,900	51,400
Seward	1,600	1,500	40.7	61,100	454,700
Stanton	3,400	3,100	30.6	94,900	706,300
Stevens	1,200	1,100	38.7	42,600	317,100
District total	28,000	26,000	34.6	899,500	6,694,600
North Central District:					
Clay	12,700	11,500	14.6	168,000	1,253,700
Cloud	6,300	4,800	10.2	49,100	366,400
Jewell	1,500	1,400	18.6	26,000	194,000
Mitchell	2,400	2,100	11.9	24,900	185,800
Osborne	600	600	11.0	6,600	49,300
Ottawa	1,300	1,200	11.0	13,200	98,500
Phillips	300	300	22.0	6,600	49,300
Republic	15,600	15,200	19.1	290,000	2,164,100
Rooks	100	100	23.0	2,300	17,200
Smith	1,000	900	25.3	22,800	170,100
Washington	20,200	18,300	19.5	356,000	2,656,600
District total	62,000	56,400	17.1	965,500	7,205,000
Central District:					
Barton	5,000	4,600	29.1	134,000	1,009,400
Dickinson	7,300	7,100	14.4	102,300	770,600
Ellis	100	100	22.0	2,200	16,600
Ellsworth	600	500	17.6	8,800	66,300
Lincoln	1,200	1,200	13.2	15,800	119,000
McPherson	14,400	13,900	13.9	193,000	1,453,600
Marion	8,500	6,300	10.9	68,700	517,500
Rice	3,500	3,200	32.5	104,000	783,400
Rush	400	400	28.8	11,500	86,600
Russell	100	100	13.0	1,300	9,800
Saline	3,100	2,500	16.8	42,000	316,400
District total	44,200	39,900	17.1	683,600	5,149,200

SOYBEANS, 1980—*Concluded*

County	Acres planted	Acres harvested for beans	Yield per acre, bushels	Production, bushels	Farm value, dollars
South Central District:					
Barber	700	700	31.1	21,800	164,900
Comanche	1,000	1,000	24.1	24,100	182,300
Edwards	15,600	15,200	23.5	357,000	2,699,800
Harper	200	200	19.0	3,800	28,700
Harvey	8,900	8,400	12.9	108,000	816,800
Kingman	1,700	1,700	21.4	36,400	275,300
Kiowa	7,800	7,700	24.2	186,000	1,406,600
Pawnee	7,800	7,700	27.7	213,000	1,610,800
Pratt	9,200	9,000	20.7	186,000	1,406,600
Reno	4,300	4,300	17.8	76,600	579,300
Sedgwick	12,200	12,200	15.9	194,000	1,467,100
Stafford	8,900	8,700	22.8	198,000	1,497,400
Sumner	4,700	4,700	9.9	46,600	352,400
District total	83,000	81,500	20.3	1,651,300	12,488,000
Northeast District:					
Atchison	44,500	43,900	25.8	1,133,000	8,568,300
Brown	66,200	66,000	25.3	1,669,000	12,621,900
Doniphan	51,000	50,000	32.9	1,646,000	12,447,900
Jackson	25,000	24,600	23.0	565,000	4,272,800
Jefferson	37,200	36,700	25.9	949,000	7,176,800
Leavenworth	24,500	24,200	26.2	633,000	4,787,100
Marshall	58,000	57,000	19.5	1,109,000	8,386,800
Nemaha	23,000	22,800	19.6	448,000	3,388,000
Pottawatomie	14,500	14,000	23.1	324,000	2,450,300
Riley	6,200	6,200	16.9	105,000	794,100
Wyandot	2,800	2,800	27.2	76,200	576,300
District total	352,900	348,200	24.9	8,657,200	65,470,300
East Central District:					
Anderson	61,000	53,500	9.6	511,000	3,869,600
Chase	8,000	6,400	11.3	72,600	549,800
Coffey	71,800	67,000	8.9	598,000	4,528,400
Douglas	34,300	33,100	20.1	664,000	5,028,200
Franklin	62,000	61,400	14.8	908,000	6,875,700
Geary	3,600	3,400	19.6	66,500	503,600
Johnson	34,700	34,200	24.3	830,000	6,285,200
Linn	49,100	42,200	8.4	355,000	2,688,300
Lyon	33,200	29,000	14.0	405,000	3,066,900
Miami	47,200	46,500	19.4	903,000	6,838,000
Morris	6,700	5,000	19.2	96,100	727,700
Osage	45,900	44,500	17.5	779,000	5,899,000
Shawnee	13,400	13,000	21.4	278,000	2,105,200
Wabaunsee	8,100	7,400	15.7	116,000	878,400
District total	479,000	446,600	14.7	6,582,200	49,844,000
Southeast District:					
Allen	59,000	53,000	9.7	513,000	3,874,400
Bourbon	45,200	39,300	6.9	270,000	2,039,200
Butler	14,900	11,400	9.6	110,000	830,800
Chautauqua	3,100	2,100	9.8	20,500	154,800
Cherokee	96,700	91,500	10.3	947,000	7,152,200
Cowley	2,900	2,500	9.5	23,700	179,000
Crawford	69,100	66,000	9.5	629,000	4,750,500
Elk	8,500	7,300	7.0	51,000	385,200
Greenwood	15,500	14,000	8.8	123,000	929,000
Labette	47,500	42,000	11.6	487,000	3,678,100
Montgomery	22,500	20,000	10.8	215,000	1,623,800
Neosho	48,200	36,700	6.9	253,000	1,910,800
Wilson	32,700	32,000	10.5	337,000	2,545,200
Woodson	25,100	24,100	8.6	207,000	1,563,400
District total	490,900	441,900	9.5	4,186,200	31,616,400
State	1,550,000	1,450,000	16.5	23,925,000	180,634,000

SOYBEANS, 1981

County	Acres planted	Acres harvested for beans	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District:					
Cheyenne	2,000	2,000	44.0	88,000	485,800
Decatur					
Graham	100	100	41.0	4,100	22,600
Norton					
Rawlins	300	300	36.0	10,800	59,600
Sheridan	3,200	3,200	44.1	141,000	778,500
Sherman	1,300	1,300	41.5	54,000	298,100
Thomas	600	600	35.2	21,100	116,500
District total	7,500	7,500	42.5	319,000	1,761,100
West Central District:					
Gove	300	300	33.7	10,100	56,400
Greeley					
Lane	300	300	42.0	12,600	70,300
Logan					
Ness	100	100	41.0	4,100	22,900
Scott	1,400	1,400	46.4	65,000	362,700
Trego					
Wallace	400	400	45.0	18,000	100,400
Wichita	700	700	46.0	32,200	179,700
District total	3,200	3,200	44.4	142,000	792,400
Southwest District:					
Clark					
Finney	1,300	1,300	37.8	49,200	279,500
Ford	4,000	4,000	47.3	189,000	1,073,600
Grant	3,100	3,100	44.8	139,000	789,600
Gray	6,500	6,500	37.4	243,000	1,380,400
Hamilton					
Haskell	3,900	3,900	44.9	175,000	994,100
Hodgeman	300	300	40.3	12,100	68,700
Kearny	900	900	45.9	41,300	234,600
Meade	3,300	3,300	39.4	130,000	738,400
Morton	200	200	41.5	8,300	47,100
Seward	1,600	1,600	36.9	59,000	335,100
Stanton	2,700	2,600	30.8	80,000	454,400
Stevens	1,200	1,200	39.3	47,100	267,500
District total	29,000	28,900	40.6	1,173,000	6,663,000
North Central District:					
Clay	14,000	13,900	36.4	506,000	2,965,200
Cloud	6,900	6,800	33.5	228,000	1,336,100
Jewell	1,700	1,700	30.0	51,000	298,900
Mitchell	2,400	2,300	37.0	85,000	498,100
Osborne	700	700	30.4	21,300	124,800
Ottawa	1,300	1,300	32.8	42,700	250,200
Phillips	300	300	25.0	7,500	44,000
Republic	17,200	17,100	36.4	623,000	3,650,800
Rooks	100	100	36.0	3,600	21,100
Smith	1,100	1,100	29.0	31,900	186,900
Washington	22,200	21,700	36.2	786,000	4,605,900
District total	67,900	67,000	35.6	2,386,000	13,982,000
Central District:					
Barton	5,000	4,400	40.2	177,000	1,039,000
Dickinson	8,000	6,800	34.1	232,000	1,361,800
Ellis	200	200	35.5	7,100	41,700
Ellsworth	600	600	40.0	24,000	140,900
Lincoln	1,300	1,300	30.5	39,700	233,000
McPherson	14,400	14,400	34.9	503,000	2,952,600
Marion	8,500	8,500	36.5	310,000	1,819,700
Rice	3,800	3,800	39.7	151,000	886,400
Rush	400	400	35.5	14,200	83,300
Russell	100	100	30.0	3,000	17,600
Saline	3,400	3,200	32.2	103,000	604,600
District total	45,700	43,700	35.8	1,564,000	9,180,600

SOYBEANS, 1981—*Concluded*

County	Acres planted	Acres harvested for beans	Yield per acre, bushels	Production, busnels	Farm value, dollars
South Central District:					
Barber	700	700	40.0	28,000	163,800
Comanche	1,000	1,000	40.0	40,000	234,000
Edwards	15,600	15,600	44.6	696,000	4,071,400
Harper	200	200	35.0	7,000	41,000
Harvey	9,800	9,700	31.6	307,000	1,796,000
Kingman	1,900	1,900	42.1	80,000	468,000
Kiowa	7,800	7,800	47.2	368,000	2,152,800
Pawnee	8,600	8,600	45.0	387,000	2,264,000
Pratt	10,100	9,300	47.7	444,000	2,597,400
Reno	4,300	4,200	29.0	122,000	713,700
Sedgwick	13,400	13,400	29.0	389,000	2,275,700
Stafford	6,700	6,700	46.7	313,000	1,831,100
Sumner	4,700	4,700	31.5	148,000	865,800
District total	84,800	83,800	39.7	3,329,000	19,474,700
Northeast District:					
Atchison	46,400	46,000	28.5	1,313,000	7,785,900
Brown	69,500	69,500	39.0	2,709,000	16,064,100
Doniphan	47,600	47,400	40.8	1,933,000	11,462,500
Jackson	30,400	30,400	34.5	1,049,000	6,220,500
Jefferson	41,200	41,000	26.1	1,069,000	6,339,000
Leavenworth	25,200	25,000	27.2	681,000	4,038,300
Marshall	73,400	73,000	38.7	2,822,000	16,734,000
Nemaha	29,200	28,700	36.9	1,059,000	6,279,800
Pottawatomie	18,400	18,200	39.2	714,000	4,233,900
Riley	7,900	7,900	36.3	287,000	1,701,900
Wyandotte	2,400	2,400	40.0	96,000	569,300
District total	391,600	389,500	35.3	13,732,000	81,429,200
East Central District:					
Anderson	56,200	56,000	31.1	1,744,000	10,306,800
Chase	7,300	7,300	28.5	208,000	1,229,300
Coffey	63,700	63,500	26.7	1,697,000	10,029,100
Douglas	38,500	35,800	29.2	1,047,000	6,187,700
Franklin	59,000	59,000	29.3	1,727,000	10,206,400
Geary	4,000	4,000	36.5	146,000	862,800
Johnson	26,400	23,200	30.2	700,000	4,136,900
Linn	47,300	45,400	26.1	1,186,000	7,009,200
Lyon	30,100	30,000	25.9	776,000	4,586,100
Miami	46,600	42,000	29.5	1,238,000	7,316,500
Morris	7,500	7,400	29.7	220,000	1,300,200
Osage	49,600	49,600	28.8	1,428,000	8,439,400
Shawnee	15,000	15,000	30.1	452,000	2,671,300
Wabaunsee	9,000	9,000	32.0	288,000	1,702,100
District total	460,200	447,200	28.8	12,857,000	75,983,800
Southeast District:					
Allen	51,500	51,400	27.7	1,422,000	8,418,100
Bourbon	33,900	33,800	20.4	688,000	4,072,900
Butler	11,200	11,000	26.8	295,000	1,746,400
Chautauqua	2,800	2,700	21.9	59,000	349,300
Cherokee	106,000	105,000	22.9	2,402,000	14,219,400
Cowley	3,200	3,000	21.3	64,000	378,900
Crawford	52,200	50,600	20.1	1,019,000	6,032,400
Elk	6,400	6,200	16.0	99,000	586,100
Greenwood	15,100	14,500	25.2	365,000	2,160,800
Labette	37,700	36,600	20.9	764,000	4,522,800
Montgomery	28,100	26,100	17.0	444,000	2,628,400
Neosho	44,100	41,900	19.1	799,000	4,730,000
Wilson	36,000	34,600	22.2	767,000	4,540,600
Woodson	21,900	21,800	28.0	611,000	3,617,100
District total	450,100	439,200	22.3	9,798,000	58,003,200
State	1,540,000	1,510,000	30.0	45,300,000	267,270,000

ALFALFA HAY, 1980

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
Northwest District:				
Cheyenne	5,300	3.9	20,700	1,272,600
Decatur	9,400	3.1	28,900	1,776,700
Graham	8,000	2.1	16,800	1,032,800
Norton	9,200	3.1	28,600	1,758,300
Rawlins	10,800	3.7	40,100	2,465,400
Sheridan	8,000	2.8	22,500	1,383,300
Sherman	6,200	4.2	26,000	1,598,500
Thomas	3,500	4.1	14,500	891,400
District total	60,400	3.3	198,100	12,179,000
West Central District:				
Gove	5,200	3.7	19,400	1,202,500
Greeley	1,000	3.9	3,900	241,700
Lane	3,500	2.6	9,000	557,900
Logan	1,000	3.0	3,000	186,000
Ness	4,300	3.1	13,300	824,400
Scott	5,300	3.3	17,500	1,084,700
Trego	5,000	2.3	11,400	706,600
Wallace	3,200	4.3	13,700	849,200
Wichita	6,800	4.1	27,700	1,717,000
District total	35,300	3.4	118,900	7,370,000
Southwest District:				
Clark	6,000	3.4	20,300	1,281,300
Finney	31,400	4.7	147,400	9,303,400
Ford	11,700	4.5	52,400	3,307,400
Grant	6,000	3.9	23,400	1,477,000
Gray	16,500	5.1	84,200	5,314,500
Hamilton	6,500	4.3	27,900	1,761,000
Haskell	7,600	5.1	38,800	2,449,000
Hodgeman	2,500	3.7	9,200	580,700
Kearny	10,900	3.8	41,700	2,632,000
Meade	8,900	3.6	32,000	2,019,800
Morton	1,400	3.5	4,900	309,300
Seward	9,500	4.8	46,000	2,903,400
Stanton	4,300	4.4	18,900	1,192,900
Stevens	5,400	4.6	25,100	1,584,300
District total	128,600	4.4	572,200	36,116,000
North Central District:				
Clay	8,700	1.9	16,800	1,058,700
Cloud	12,000	2.8	33,000	2,079,500
Jewell	15,100	2.8	42,400	2,671,800
Mitchell	8,700	2.0	17,400	1,096,500
Osborne	12,000	3.1	37,600	2,369,400
Ottawa	11,100	2.3	25,200	1,588,000
Phillips	18,000	2.4	42,500	2,678,100
Republic	15,000	3.1	46,200	2,911,200
Rooks	14,300	2.8	39,900	2,514,300
Smith	16,300	2.7	43,400	2,734,900
Washington	17,300	2.1	35,700	2,249,600
District total	148,500	2.6	380,100	23,952,000
Central District:				
Barton	35,600	2.5	90,200	5,720,900
Dickinson	19,000	2.1	40,800	2,587,700
Ellis	7,500	2.9	21,600	1,370,000
Ellsworth	8,000	1.8	14,300	907,000
Lincoln	15,700	2.8	43,300	2,746,300
McPherson	16,200	2.7	43,400	2,752,600
Marion	21,900	1.6	35,000	2,219,900
Rice	15,500	2.2	34,300	2,175,500
Rush	5,000	3.6	18,000	1,141,700
Russell	7,800	1.9	15,200	964,100
Saline	11,000	2.6	29,000	1,839,300
District total	163,200	2.4	385,100	24,425,000

ALFALFA HAY, 1980—*Concluded*

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
South Central District:				
Barber	9,000	2.8	24,900	1,569,100
Comanche	8,700	2.9	25,200	1,588,000
Edwards	18,500	4.0	73,700	4,644,200
Harper	7,300	3.7	27,200	1,714,000
Harvey	8,600	2.6	22,400	1,411,500
Kingman	10,000	2.5	25,300	1,594,300
Kiowa	5,200	2.6	13,500	850,700
Pawnee	35,000	3.9	137,200	8,645,600
Pratt	13,000	3.0	38,400	2,419,800
Reno	25,500	3.3	84,200	5,305,800
Sedgwick	23,700	2.4	57,300	3,610,700
Stafford	23,400	3.1	73,500	4,631,600
Sumner	13,700	1.9	26,100	1,644,700
District total	201,600	3.1	628,900	39,630,000
Northeast District:				
Atchison	4,500	2.6	11,800	724,200
Brown	5,800	2.8	16,400	1,006,600
Doniphan	3,300	3.6	11,800	724,200
Jackson	7,100	2.1	15,100	926,800
Jefferson	5,500	2.7	14,700	902,200
Leavenworth	8,200	2.2	18,300	1,123,200
Marshall	17,300	2.0	34,300	2,105,200
Nemaha	12,400	2.0	24,400	1,497,600
Pottawatomie	13,300	2.6	34,300	2,105,400
Riley	9,500	2.5	23,400	1,436,200
Wyandotte	1,100	2.9	3,200	196,400
District total	88,000	2.4	207,700	12,748,000
East Central District:				
Anderson	5,700	1.9	11,100	699,500
Chase	7,100	2.0	14,000	882,300
Coffey	3,800	1.0	3,700	233,200
Douglas	3,500	2.4	8,500	535,700
Franklin	3,900	2.0	7,700	485,200
Geary	5,500	2.3	12,600	794,000
Johnson	1,600	2.1	3,400	214,300
Linn	2,400	1.3	3,000	189,100
Lyon	6,400	1.7	11,100	699,500
Miami	3,700	1.8	6,600	415,900
Morris	13,600	1.7	22,900	1,443,100
Osage	3,100	2.0	6,200	390,700
Shawnee	5,500	3.5	19,000	1,197,400
Wabaunsee	12,100	2.1	25,200	1,588,100
District total	77,900	2.0	155,000	9,768,000
Southeast District:				
Allen	5,000	1.4	6,800	429,900
Bourbon	2,900	1.9	5,500	347,700
Butler	14,900	1.7	25,000	1,580,500
Chautauqua	4,700	2.1	10,100	638,500
Cherokee	900	2.0	1,800	113,800
Cowley	12,800	2.5	32,400	2,048,200
Crawford	1,300	1.1	1,400	88,500
Elk	4,400	1.8	8,000	505,700
Greenwood	7,800	1.9	14,500	916,700
Labette	2,000	1.9	3,800	240,200
Montgomery	3,500	2.1	7,300	461,500
Neosho	2,000	2.0	4,000	252,900
Wilson	6,300	1.4	9,000	569,000
Woodson	3,000	1.1	3,400	214,900
District total	71,500	1.9	133,000	8,408,000
State	975,000	2.9	2,779,000	174,596,000

ALFALFA HAY, 1981

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
Northwest District:				
Cheyenne	9,300	4.8	44,200	2,720,000
Decatur	8,700	3.9	33,500	2,061,600
Graham	10,000	3.2	32,300	1,987,700
Norton	8,600	3.6	31,200	1,920,000
Rawlins	15,300	3.5	53,600	3,298,600
Sheridan	10,600	3.5	36,700	2,258,500
Sherman	5,100	4.2	21,200	1,304,600
Thomas	6,000	5.4	32,500	2,000,000
District total	73,600	3.9	285,200	17,551,000
West Central District:				
Gove	3,900	4.1	16,000	1,017,000
Greeley	700	3.4	2,400	152,500
Lane	2,900	2.9	8,400	533,900
Logan	900	3.2	2,900	184,300
Ness	3,900	3.9	15,100	959,800
Scott	7,500	5.7	42,800	2,720,300
Trego	5,000	3.1	15,400	978,800
Wallace	4,000	3.2	12,600	800,900
Wichita	4,500	4.1	18,400	1,169,500
District total	33,300	4.0	134,000	8,517,000
Southwest District:				
Clark	3,600	3.0	10,800	677,700
Finney	50,200	4.7	238,200	14,947,100
Ford	20,800	5.1	105,600	6,626,400
Grant	6,000	3.8	22,800	1,430,700
Gray	27,200	5.8	157,900	9,908,200
Hamilton	5,700	4.7	26,800	1,681,700
Haskell	5,300	5.7	30,400	1,907,600
Hodgeman	2,100	5.5	11,500	721,600
Kearny	14,200	3.5	50,300	3,156,300
Meade	6,100	4.0	24,200	1,518,600
Morton	1,200	3.0	3,600	225,900
Seward	12,400	4.6	57,400	3,601,900
Stanton	4,300	4.0	17,200	1,079,300
Stevens	5,200	5.6	29,100	1,826,000
District total	164,300	4.8	785,800	49,309,000
North Central District:				
Clay	8,900	3.1	27,500	1,692,300
Cloud	13,900	3.7	51,600	3,175,400
Jewell	28,900	3.1	89,500	5,507,600
Mitchell	7,000	3.8	26,600	1,636,900
Osborne	14,100	3.0	41,800	2,572,300
Ottawa	9,800	3.2	31,400	1,932,300
Phillips	14,200	2.5	35,500	2,184,600
Republic	12,800	3.6	46,100	2,836,900
Rooks	10,000	3.0	30,000	1,846,100
Smith	13,800	3.1	42,600	2,621,500
Washington	16,700	2.9	48,800	3,003,100
District total	150,100	3.1	471,400	29,009,000
Central District:				
Barton	44,500	3.3	147,500	8,912,700
Dickinson	16,400	3.0	48,700	2,942,700
Ellis	7,900	3.1	24,100	1,456,300
Ellsworth	7,900	3.1	24,200	1,462,300
Lincoln	21,000	3.6	75,600	4,568,200
McPherson	15,400	3.2	48,800	2,948,800
Marion	18,100	3.0	54,100	3,269,000
Rice	20,300	3.5	71,300	4,308,300
Rush	4,700	3.6	17,100	1,033,300
Russell	8,600	3.3	28,500	1,722,100
Saline	13,000	3.3	42,900	2,592,300
District total	177,800	3.3	582,800	35,216,000

ALFALFA HAY, 1981—*Concluded*

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
South Central District:				
Barber	7,800	3.2	24,800	1,516,100
Comanche	5,500	3.0	16,500	1,008,700
Edwards	16,000	4.5	72,600	4,438,300
Harper	5,000	3.1	15,500	947,600
Harvey	8,000	3.1	24,600	1,503,900
Kingman	7,300	2.6	19,000	1,161,500
Kiowa	4,400	5.2	22,900	1,400,000
Pawnee	41,400	3.5	144,900	8,858,200
Pratt	8,300	3.6	29,900	1,827,900
Reno	17,500	3.1	54,800	3,350,100
Sedgwick	22,400	3.2	72,700	4,444,400
Stafford	18,200	3.4	61,700	3,771,900
Sumner	8,600	2.6	22,400	1,369,400
District total	170,400	3.4	582,300	35,598,000
Northeast District:				
Atchison	5,600	3.5	19,700	1,216,300
Brown	5,600	4.1	22,700	1,401,500
Doniphan	2,700	3.3	9,000	555,700
Jackson	5,600	3.0	17,000	1,049,600
Jefferson	3,800	3.4	12,900	796,500
Leavenworth	6,600	3.0	19,800	1,222,500
Marshall	16,200	2.9	46,900	2,895,700
Nemaha	13,400	3.4	46,200	2,852,500
Pottawatomie	16,500	3.7	60,300	3,722,900
Riley	10,100	4.2	42,400	2,617,900
Wyandotte	900	3.1	2,800	172,900
District total	87,000	3.4	299,700	18,504,000
East Central District:				
Anderson	8,000	2.9	23,000	1,422,300
Chase	6,700	3.4	22,800	1,410,000
Coffey	3,000	3.0	9,100	562,700
Douglas	5,200	3.7	19,400	1,199,700
Franklin	4,600	3.3	15,200	940,000
Geary	6,300	3.7	23,100	1,428,500
Johnson	1,900	3.2	6,000	371,000
Linn	2,000	3.2	6,400	395,800
Lyon	9,800	3.3	32,400	2,003,600
Miami	3,000	3.0	9,000	556,600
Morris	17,500	3.9	69,100	4,273,200
Osage	2,800	2.8	7,800	482,400
Shawnee	4,500	3.1	14,000	865,800
Wabaunsee	10,400	3.5	36,100	2,232,400
District total	85,700	3.4	293,400	18,144,000
Southeast District:				
Allen	2,500	3.4	8,500	523,100
Bourbon	2,000	3.2	6,400	393,900
Butler	11,100	2.6	29,400	1,809,300
Chautauqua	2,900	2.6	7,600	467,700
Cherokee	1,700	4.0	6,800	418,500
Cowley	9,200	2.3	21,100	1,298,500
Crawford	1,600	4.0	6,400	393,900
Elk	3,600	2.3	8,400	517,000
Greenwood	6,000	3.3	20,000	1,230,800
Labette	1,200	2.5	3,000	184,600
Montgomery	5,500	2.8	15,500	953,900
Neosho	1,200	2.8	3,300	203,100
Wilson	7,100	3.0	21,600	1,329,300
Woodson	2,200	3.4	7,400	455,400
District total	57,800	2.9	165,400	10,179,000
State	1,000,000	3.6	3,600,000	222,027,000

ALL OTHER HAY, 1980[1]

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
Northwest District:				
Cheyenne	2,500	1.8	4,600	263,400
Decatur	2,000	1.6	3,100	177,500
Graham	3,100	1.1	3,300	189,000
Norton	2,200	1.9	4,100	234,800
Rawlins	2,100	2.4	5,000	286,300
Sheridan	1,800	2.3	4,200	240,500
Sherman	1,600	1.3	2,100	120,300
Thomas	2,500	1.7	4,300	246,200
District total	17,800	1.7	30,700	1,758,000
West Central District:				
Gove	1,700	1.1	1,800	103,100
Greeley	2,700	1.9	5,100	292,000
Lane	1,300	2.5	3,200	183,200
Logan	2,800	2.0	5,500	314,900
Ness	4,000	2.2	8,800	504,000
Scott	2,000	2.6	5,100	292,000
Trego	2,400	1.9	4,600	263,400
Wallace	1,000	1.7	1,700	97,300
Wichita	1,600	1.8	2,900	166,100
District total	19,500	2.0	38,700	2,216,000
Southwest District:				
Clark	2,700	1.6	4,400	260,100
Finney	1,700	1.2	2,100	124,200
Ford	4,000	2.8	11,000	650,200
Grant	700	2.1	1,500	88,700
Gray	2,400	2.2	5,300	313,400
Hamilton	1,500	2.3	3,400	201,000
Haskell	300	2.0	600	35,500
Hodgeman	3,000	2.4	7,100	419,800
Kearny	1,000	2.4	2,400	141,900
Meade	2,100	2.4	5,100	301,500
Morton	1,200	1.1	1,300	76,900
Seward	1,400	1.1	1,500	88,700
Stanton	1,100	0.7	800	47,300
Stevens	700	2.0	1,400	82,800
District total	23,800	2.0	47,900	2,832,000
North Central District:				
Clay	12,700	0.7	8,500	501,700
Cloud	6,400	0.7	4,300	253,800
Jewell	8,000	1.5	11,600	684,600
Mitchell	4,500	0.9	4,200	247,900
Osborne	7,000	1.2	8,600	507,600
Ottawa	7,000	0.9	6,000	354,100
Phillips	6,000	1.3	7,800	460,400
Republic	6,700	1.3	9,000	531,200
Rooks	2,900	1.9	5,600	330,500
Smith	8,000	1.3	10,500	619,700
Washington	16,900	0.9	15,700	926,500
District total	86,100	1.1	91,800	5,418,000
Central District:				
Barton	6,500	1.6	10,400	628,700
Dickinson	16,000	1.0	16,200	979,300
Ellis	4,500	1.6	7,300	441,300
Ellsworth	12,000	1.1	13,200	797,900
Lincoln	9,300	1.5	13,500	816,100
McPherson	7,500	1.2	8,900	538,000
Marion	20,000	0.9	18,800	1,136,500
Rice	2,900	1.4	4,100	247,800
Rush	3,000	1.4	4,100	247,800
Russell	9,400	1.5	13,900	840,200
Saline	6,700	1.1	7,500	453,400
District total	97,800	1.2	117,900	7,127,000

ALL OTHER HAY, 1980[1]— *Concluded*

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
South Central District:				
Barber	5,000	1.5	7,500	461,100
Comanche	600	1.0	600	36,900
Edwards	1,000	1.8	1,800	110,700
Harper	4,600	1.9	8,700	534,900
Harvey	5,500	0.8	4,400	270,500
Kingman	8,300	1.4	11,700	719,400
Kiowa	3,200	2.0	6,400	393,500
Pawnee	1,200	1.4	1,700	104,500
Pratt	2,100	1.7	3,600	221,300
Reno	5,500	1.5	8,500	522,600
Sedgwick	9,500	1.3	12,100	744,000
Stafford	3,000	2.1	6,300	387,400
Sumner	7,800	1.1	8,900	547,200
District total	57,300	1.4	82,200	5,054,000
Northeast District:				
Atchison	16,500	1.8	29,800	1,764,900
Brown	14,000	1.9	26,200	1,551,700
Doniphan	3,700	3.0	11,100	657,400
Jackson	40,000	1.5	59,300	3,511,800
Jefferson	25,000	1.8	44,600	2,641,400
Leavenworth	20,000	1.9	38,500	2,280,100
Marshall	20,000	1.1	22,700	1,344,400
Nemaha	13,800	1.6	22,100	1,308,800
Pottawatomie	30,300	1.0	29,300	1,735,200
Riley	9,500	1.0	9,800	580,400
Wyandotte	2,800	2.4	6,600	390,900
District total	195,600	1.5	300,000	17,767,000
East Central District:				
Anderson	33,000	1.1	35,300	2,148,500
Chase	5,000	1.2	6,000	365,200
Coffey	32,000	0.7	21,600	1,314,700
Douglas	23,100	1.4	33,000	2,008,500
Franklin	31,300	1.6	50,200	3,055,500
Geary	6,500	1.0	6,300	383,400
Johnson	17,400	1.6	27,800	1,692,000
Linn	30,000	1.0	30,000	1,825,900
Lyon	32,400	0.7	23,500	1,430,300
Miami	37,200	1.3	46,500	2,830,200
Morris	23,000	0.6	14,400	876,500
Osage	36,600	1.0	37,000	2,252,000
Shawnee	17,500	1.1	18,600	1,132,100
Wabaunsee	25,500	0.9	23,300	1,418,200
District total	350,500	1.1	373,500	22,733,000
Southeast District:				
Allen	26,000	0.6	16,300	1,005,500
Bourbon	31,000	0.7	22,800	1,406,400
Butler	36,000	0.8	28,400	1,751,700
Chautauqua	10,000	0.7	6,800	419,500
Cherokee	16,000	0.9	14,500	894,400
Cowley	18,000	1.1	19,500	1,202,900
Crawford	17,600	0.8	14,900	919,100
Elk	16,500	0.7	12,300	758,700
Greenwood	20,000	0.7	14,100	869,800
Labette	25,000	0.9	22,700	1,400,300
Montgomery	18,500	1.0	19,200	1,184,400
Neosho	19,000	0.9	17,000	1,048,700
Wilson	19,000	0.7	14,200	875,900
Woodson	29,000	0.6	17,600	1,085,700
District total	301,600	0.8	240,300	14,823,000
State	1,150,000	1.2	1,323,000	79,728,000

1. All types except alfalfa.

ALL OTHER HAY, 1981[1]

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
Northwest District:				
Cheyenne	3,800	2.4	9,000	453,200
Decatur	1,100	2.2	2,400	120,800
Graham	1,700	3.0	5,100	256,700
Norton	1,200	2.5	3,000	151,000
Rawlins	2,100	2.6	5,500	276,800
Sheridan	1,400	3.1	4,300	216,400
Sherman	1,100	1.7	1,900	95,600
Thomas	1,700	2.6	4,500	226,500
District total	14,100	2.5	35,700	1,797,000
West Central District:				
Gove	1,100	1.6	1,800	92,000
Greeley	2,700	2.0	5,400	276,000
Lane	1,200	1.5	1,800	92,000
Logan	2,500	1.9	4,800	245,400
Ness	4,400	2.0	8,900	454,900
Scott	2,000	2.1	4,100	209,600
Trego	3,200	2.9	9,300	475,500
Wallace	1,400	1.5	2,100	107,300
Wichita	1,800	1.2	2,100	107,300
District total	20,300	2.0	40,300	2,060,000
Southwest District:				
Clark	4,900	1.6	7,700	406,200
Finney	2,200	2.8	6,200	327,100
Ford	3,200	2.8	9,000	474,800
Grant	700	1.6	1,100	58,000
Gray	3,200	1.8	5,900	311,200
Hamilton	1,200	1.8	2,200	116,100
Haskell	200	2.5	500	26,400
Hodgeman	3,000	3.0	9,000	474,700
Kearny	1,000	1.8	1,800	95,000
Meade	3,400	1.8	6,100	321,800
Morton	1,800	1.6	2,900	153,000
Seward	1,400	2.0	2,800	147,700
Stanton	1,100	1.5	1,600	84,400
Stevens	700	1.9	1,300	68,600
District total	28,000	2.1	58,100	3,065,000
North Central District:				
Clay	6,400	1.6	10,300	497,500
Cloud	5,400	1.7	9,200	444,400
Jewell	12,500	2.0	25,300	1,222,200
Mitchell	5,600	1.9	10,900	526,500
Osborne	4,500	2.5	11,100	536,200
Ottawa	8,100	2.0	15,900	768,000
Phillips	4,500	2.4	10,600	512,000
Republic	6,200	1.5	9,500	458,900
Rooks	3,600	2.0	7,200	347,800
Smith	10,400	2.1	22,100	1,067,500
Washington	12,800	1.9	24,800	1,198,000
District total	80,000	2.0	156,900	7,579,000
Central District:				
Barton	4,900	1.6	7,700	376,600
Dickinson	17,800	1.8	32,900	1,609,000
Ellis	4,000	2.0	8,000	391,200
Ellsworth	10,800	2.2	23,400	1,144,400
Lincoln	12,700	2.2	28,000	1,369,400
McPherson	5,400	1.6	8,800	430,400
Marion	22,400	2.0	45,600	2,230,100
Rice	4,600	2.5	11,700	572,200
Rush	3,300	2.2	7,300	357,000
Russell	8,800	1.7	14,900	728,700
Saline	11,300	1.7	19,200	939,000
District total	106,000	2.0	207,500	10,148,000

ALL OTHER HAY, 1981[1]—*Concluded*

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
South Central District:				
Barber	8,000	2.0	16,000	787,300
Comanche	500	2.2	1,100	54,100
Edwards	600	3.0	1,800	88,600
Harper	4,400	2.5	10,900	536,400
Harvey	7,300	1.5	11,200	551,100
Kingman	9,300	2.1	19,500	959,600
Kiowa	3,800	3.1	11,800	580,700
Pawnee	600	2.8	1,700	83,700
Pratt	1,500	2.6	3,900	191,900
Reno	5,000	2.0	10,000	492,100
Sedgwick	15,000	1.4	21,100	1,038,300
Stafford	2,400	1.7	4,000	196,800
Sumner	7,500	1.6	12,100	595,400
District total	65,900	1.9	125,100	6,156,000
Northeast District:				
Atchison	18,600	2.3	42,000	2,134,700
Brown	15,700	2.1	33,600	1,707,800
Doniphan	2,500	2.3	5,700	289,700
Jackson	56,000	1.9	107,700	5,473,800
Jefferson	27,800	2.2	62,200	3,161,400
Leavenworth	22,400	2.5	55,400	2,815,800
Marshall	20,100	1.7	34,600	1,758,600
Nemaha	11,400	2.1	24,400	1,240,200
Pottawatomie	40,600	1.9	76,900	3,908,500
Riley	10,700	1.8	19,200	975,900
Wyandotte	2,000	1.6	3,200	162,600
District total	227,800	2.0	464,900	23,629,000
East Central District:				
Anderson	34,700	2.0	69,800	3,618,300
Chase	7,300	1.5	11,300	585,800
Coffey	31,500	1.8	55,800	2,892,600
Douglas	29,400	2.0	57,800	2,996,200
Franklin	32,900	2.2	73,200	3,794,500
Geary	7,300	1.6	12,000	622,100
Johnson	12,400	1.6	19,900	1,031,600
Linn	22,500	2.2	50,100	2,597,100
Lyon	51,500	1.7	86,600	4,489,200
Miami	43,200	1.9	83,600	4,333,600
Morris	40,300	1.8	70,900	3,675,300
Osage	60,300	2.1	127,300	6,598,800
Shawnee	21,900	2.1	46,000	2,384,500
Wabaunsee	42,900	1.7	74,200	3,846,400
District total	438,100	1.9	838,500	43,466,000
Southeast District:				
Allen	27,900	2.0	55,300	2,654,300
Bourbon	27,700	1.6	44,800	2,150,300
Butler	48,100	1.4	69,700	3,345,500
Chautauqua	10,600	1.7	18,400	883,200
Cherokee	17,600	1.6	28,900	1,387,100
Cowley	19,900	1.3	26,500	1,272,000
Crawford	22,400	2.1	46,600	2,236,700
Elk	11,000	1.2	13,000	624,000
Greenwood	25,000	1.6	40,600	1,948,700
Labette	30,300	1.8	55,600	2,668,700
Montgomery	14,000	1.7	23,800	1,142,400
Neosho	18,800	1.8	33,000	1,583,900
Wilson	16,900	1.6	27,500	1,319,900
Woodson	29,600	2.0	59,300	2,846,300
District total	319,800	1.7	543,000	26,063,000
State	1,300,000	1.9	2,470,000	123,963,000

1. All types except alfalfa.

ALL HAY, 1980

County	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars
Northwest District:				
Cheyenne	7,800	3.2	25,300	1,536,000
Decatur	11,400	2.8	32,000	1,954,200
Graham	11,100	1.8	20,100	1,221,800
Norton	11,400	2.9	32,700	1,993,100
Rawlins	12,900	3.5	45,100	2,751,700
Sheridan	9,800	2.7	26,700	1,623,800
Sherman	7,800	3.6	28,100	1,718,800
Thomas	6,000	3.1	18,800	1,137,600
District total	78,200	2.9	228,800	13,937,000
West Central District:				
Gove	6,900	3.1	21,200	1,305,600
Greeley	3,700	2.4	9,000	533,700
Lane	4,800	2.5	12,200	741,100
Logan	3,860	2.2	8,500	500,900
Ness	8,300	2.7	22,100	1,328,400
Scott	7,300	3.1	22,600	1,376,700
Trego	7,400	2.2	16,000	970,000
Wallace	4,200	3.7	15,400	946,500
Wichita	8,400	3.6	30,600	1,883,100
District total	54,800	2.9	157,600	9,586,000
Southwest District:				
Clark	8,700	2.8	24,700	1,541,400
Finney	33,100	4.5	149,500	9,427,600
Ford	15,700	4.0	63,400	3,957,600
Grant	6,700	3.7	24,900	1,565,700
Gray	18,900	4.7	89,500	5,627,900
Hamilton	8,000	3.9	31,300	1,962,000
Haskell	7,900	5.0	39,400	2,484,500
Hodgeman	5,500	3.0	16,300	1,000,500
Kearny	11,900	3.7	44,100	2,773,900
Meade	11,000	3.4	37,100	2,321,300
Morton	2,600	2.4	6,200	386,200
Seward	10,900	4.4	47,500	2,992,100
Stanton	5,400	3.6	19,700	1,240,200
Stevens	6,100	4.3	26,300	1,667,100
District total	152,400	4.1	620,100	38,948,000
North Central District:				
Clay	21,400	1.2	25,300	1,560,400
Cloud	18,400	2.0	37,300	2,333,300
Jewell	23,100	2.3	54,000	3,356,400
Mitchell	13,200	1.6	21,600	1,344,400
Osborne	19,000	2.4	46,200	2,877,000
Ottawa	18,100	1.7	31,200	1,942,100
Phillips	24,000	2.1	50,300	3,138,500
Republic	21,700	2.5	55,200	3,442,400
Rooks	17,200	2.6	45,500	2,844,800
Smith	24,300	2.2	53,900	3,354,600
Washington	34,200	1.5	51,400	3,176,100
District total	234,600	2.0	471,900	29,370,000
Central District:				
Barton	42,100	2.4	100,600	6,349,600
Dickinson	35,000	1.6	57,700	3,567,000
Ellis	12,000	2.4	28,900	1,811,300
Ellsworth	20,000	1.4	27,500	1,704,900
Lincoln	25,000	2.3	56,800	3,562,400
McPherson	23,700	2.2	52,300	3,290,600
Marion	41,900	1.3	53,800	3,356,400
Rice	18,400	2.1	38,400	2,423,300
Rush	8,000	2.8	22,100	1,389,500
Russell	17,200	1.7	29,100	1,804,300
Saline	17,700	2.1	36,500	2,292,700
District total	261,000	1.9	503,000	31,552,000

ALL HAY, 1980—*Concluded*

County	Acres harvested	Yield per acre tons	Production, tons	Farm value, dollars
South Central District:				
Barber	14,000	2.3	32,400	2,030,200
Comanche	9,300	2.8	25,800	1,624,900
Edwards	19,500	3.9	75,500	4,754,900
Harper	11,900	3.0	35,900	2,248,900
Harvey	14,100	1.9	26,800	1,682,000
Kingman	18,300	2.0	37,000	2,313,700
Kiowa	8,400	2.4	19,900	1,244,200
Pawnee	36,200	3.8	138,900	8,750,100
Pratt	15,100	2.8	42,000	2,641,100
Reno	31,000	3.0	92,700	5,828,400
Sedgwick	33,200	2.1	69,400	4,354,700
Stafford	26,400	3.0	79,800	5,019,000
Sumner	21,500	1.6	35,000	2,191,900
District total	258,900	2.7	711,100	44,684,000
Northeast District:				
Atchison	21,000	2.0	41,600	2,489,100
Brown	19,800	2.2	42,600	2,558,300
Doniphan	7,000	3.3	22,900	1,381,600
Jackson	47,100	1.6	74,400	4,438,600
Jefferson	30,500	1.9	59,300	3,543,600
Leavenworth	28,200	2.0	56,800	3,403,300
Marshall	37,300	1.5	57,000	3,449,600
Nemaha	26,200	1.8	46,700	2,806,400
Pottawatomie	43,600	1.5	63,600	3,840,600
Riley	19,000	1.7	33,200	2,016,600
Wyandotte	3,900	2.5	9,800	587,300
District total	283,600	1.8	507,700	30,515,000
East Central District:				
Anderson	38,700	1.2	46,400	2,848,000
Chase	12,100	1.7	20,000	1,247,500
Coffey	35,800	0.7	25,300	1,547,900
Douglas	26,600	1.6	41,500	2,544,200
Franklin	35,200	1.6	57,900	3,540,700
Geary	12,000	1.6	18,900	1,177,400
Johnson	19,000	1.6	31,200	1,906,300
Linn	32,400	1.0	33,000	2,015,000
Lyon	38,800	0.9	34,600	2,129,800
Miami	40,900	1.3	53,100	3,246,100
Morris	36,600	1.0	37,300	2,319,600
Osage	39,700	1.1	43,200	2,642,700
Shawnee	23,000	1.6	37,600	2,329,500
Wabaunsee	37,600	1.3	48,500	3,006,300
District total	428,400	1.2	528,500	32,501,000
Southeast District:				
Allen	31,000	0.7	23,100	1,435,400
Bourbon	33,900	0.8	28,300	1,754,100
Butler	50,900	1.0	53,400	3,332,200
Chautauqua	14,700	1.1	16,900	1,058,000
Cherokee	16,900	1.0	16,300	1,008,200
Cowley	30,800	1.7	51,900	3,251,100
Crawford	18,900	0.9	16,300	1,007,600
Elk	20,900	1.0	20,300	1,264,400
Greenwood	27,800	1.0	28,600	1,786,500
Labette	27,000	1.0	26,500	1,640,500
Montgomery	22,000	1.2	26,500	1,645,900
Neosho	21,000	1.0	21,000	1,301,600
Wilson	25,300	0.9	23,200	1,444,900
Woodson	32,000	0.7	21,000	1,300,600
District total	373,100	1.0	373,300	23,231,000
State	2,125,000	1.9	4,102,000	254,324,000

ALL HAY AND PASTURE,* 1981

County	All hay				Pasture (000) acres*
	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars	
Northwest District:					
Cheyenne	13,100	4.0	53,200	3,173,200	251
Decatur	9,800	3.6	35,900	2,182,400	223
Graham	11,700	3.2	37,400	2,244,400	263
Norton	9,800	3.4	34,200	2,071,000	206
Rawlins	17,400	3.4	59,100	3,575,400	262
Sheridan	12,000	3.4	41,000	2,474,900	190
Sherman	6,200	3.7	23,100	1,400,200	178
Thomas	7,700	4.8	37,000	2,226,500	146
District total	87,700	3.6	320,900	19,348,000	1,719
West Central District:					
Gove	5,000	3.5	17,800	1,109,000	291
Greeley	3,400	2.2	7,800	428,500	88
Lane	4,100	2.4	10,200	625,900	152
Logan	3,400	2.2	7,700	429,700	315
Ness	8,300	2.8	24,000	1,414,700	258
Scott	9,500	4.9	46,900	2,929,900	117
Trego	8,200	3.0	24,700	1,454,300	224
Wallace	5,400	2.7	14,700	908,200	245
Wichita	6,300	3.2	20,500	1,276,800	101
District total	53,600	3.2	174,300	10,577,000	1,791
Southwest District:					
Clark	8,500	2.1	18,500	1,083,900	402
Finney	52,400	4.6	244,400	15,274,200	173
Ford	24,000	4.7	114,600	7,101,200	199
Grant	6,700	3.5	23,900	1,488,700	74
Gray	30,400	5.3	163,800	10,219,400	79
Hamilton	6,900	4.2	29,000	1,797,800	170
Haskell	5,500	5.6	30,900	1,934,000	52
Hodgeman	5,100	4.0	20,500	1,196,300	202
Kearny	15,200	3.4	52,100	3,251,300	157
Meade	9,500	3.1	30,300	1,840,400	248
Morton	3,000	2.1	6,500	378,900	157
Seward	13,800	4.3	60,200	3,749,600	91
Stanton	5,400	3.4	18,800	1,163,700	88
Stevens	5,900	5.1	30,400	1,894,600	87
District total	192,300	4.3	843,900	52,374,000	2,179
North Central District:					
Clay	15,300	2.4	37,800	2,189,800	124
Cloud	19,300	3.1	60,800	3,619,800	138
Jewell	41,400	2.7	114,800	6,729,800	204
Mitchell	12,600	2.9	37,500	2,163,400	139
Osborne	18,600	2.8	52,900	3,108,500	243
Ottawa	17,900	2.6	47,300	2,700,300	186
Phillips	18,700	2.4	46,100	2,696,600	290
Republic	19,000	2.9	55,600	3,295,800	137
Rooks	13,600	2.7	37,200	2,193,900	239
Smith	24,200	2.6	64,700	3,689,000	233
Washington	29,500	2.4	73,600	4,201,100	196
District total	230,100	2.7	628,300	36,588,000	2,129
Central District:					
Barton	49,400	3.1	155,200	9,289,300	124
Dickinson	34,200	2.3	81,600	4,551,700	171
Ellis	11,900	2.7	32,100	1,847,500	215
Ellsworth	18,700	2.5	47,600	2,606,700	184
Lincoln	33,700	3.0	103,600	5,937,600	207
McPherson	20,800	2.7	57,600	3,379,200	136
Marion	40,500	2.4	99,700	5,499,100	197
Rice	24,900	3.3	83,000	4,880,500	120
Rush	8,000	3.0	24,400	1,390,300	110
Russell	17,400	2.4	43,400	2,450,800	219
Saline	24,300	2.5	62,100	3,531,300	155
District total	283,800	2.7	790,300	45,364,000	1,838

ALL HAY AND PASTURE,* 1981—*Concluded*

County	All hay				Pasture (000) acres*
	Acres harvested	Yield per acre, tons	Production, tons	Farm value, dollars	
South Central District:					
Barber	15,800	2.5	40,800	2,303,400	459
Comanche	6,000	2.9	17,600	1,062,800	320
Edwards	16,600	4.4	74,400	4,526,900	95
Harper	9,400	2.8	26,400	1,484,000	189
Harvey	15,300	2.3	35,800	2,055,000	57
Kingman	16,600	2.3	38,500	2,121,100	193
Kiowa	8,200	4.2	34,700	1,980,700	242
Pawnee	42,000	3.4	146,600	8,941,900	85
Pratt	9,800	3.4	33,800	2,019,800	110
Reno	22,500	2.8	64,800	3,842,200	184
Sedgwick	37,400	2.5	93,800	5,482,700	113
Stafford	20,600	3.1	65,700	3,968,700	115
Sumner	16,100	2.1	34,500	1,964,800	143
District total	236,300	2.9	707,400	41,754,000	2,275
Northeast District:					
Atchison	24,200	2.5	61,700	3,351,000	70
Brown	21,300	2.6	56,300	3,109,300	70
Doniphan	5,200	2.8	14,700	845,400	38
Jackson	61,600	2.0	124,700	6,523,400	178
Jefferson	31,600	2.3	75,100	3,957,900	102
Leavenworth	29,000	2.5	75,200	4,038,300	69
Marshall	36,300	2.2	81,500	4,654,300	185
Nemaha	24,800	2.8	70,600	4,092,700	138
Pottawatomie	57,100	2.4	137,200	7,631,400	260
Riley	20,800	2.9	61,600	3,593,800	136
Wyandotte	2,900	2.0	6,000	335,500	9
District total	314,800	2.4	764,600	42,133,000	1,255
East Central District:					
Anderson	42,700	2.1	92,800	5,040,600	160
Chase	14,000	2.4	34,100	1,995,800	324
Coffey	34,500	1.8	64,900	3,455,300	159
Douglas	34,600	2.2	77,200	4,195,900	81
Franklin	37,500	2.3	88,400	4,734,500	112
Geary	13,600	2.5	35,100	2,050,600	90
Johnson	14,300	1.8	25,900	1,402,600	64
Linn	24,500	2.3	56,500	2,992,900	119
Lyon	61,300	1.9	119,000	6,492,800	256
Miami	46,200	2.0	92,600	4,890,200	116
Morris	57,800	2.4	140,000	7,948,500	252
Osage	63,100	2.1	135,100	7,081,200	154
Shawnee	26,400	2.2	60,000	3,250,300	77
Wabaunsee	53,300	2.0	110,300	6,078,800	258
District total	523,800	2.1	1,131,900	61,610,000	2,222
Southeast District:					
Allen	30,400	2.1	63,800	3,177,400	122
Bourbon	29,700	1.7	51,200	2,544,200	184
Butler	59,200	1.6	99,100	5,154,800	438
Chautauqua	13,500	1.9	26,000	1,350,900	265
Cherokee	19,300	1.8	35,700	1,805,600	74
Cowley	29,100	1.6	47,600	2,570,500	419
Crawford	24,000	2.2	53,000	2,630,600	125
Elk	14,600	1.4	21,400	1,141,000	278
Greenwood	31,000	1.9	60,600	3,179,500	523
Labette	31,500	1.8	58,600	2,853,300	161
Montgomery	19,500	2.0	39,300	2,096,300	152
Neosho	20,000	1.8	36,300	1,787,000	142
Wilson	24,000	2.0	49,100	2,649,200	147
Woodson	31,800	2.1	66,700	3,301,700	192
District total	377,600	1.8	708,400	36,242,000	3,222
State	2,300,000	2.6	6,070,000	345,990,000	18,630

* Based on 1978 U.S. Census of Agriculture.

ALFALFA SEED, 1979

County	Acres* harvested	Yield per acre, pounds	Production, pounds	Farm value, dollars
Northwest District:				
Cheyenne				
Decatur				
Graham	290	95	27,600	22,500
Norton	170	95	16,100	13,000
Rawlins	270	95	25,600	20,700
Sheridan	*	*	*	*
Sherman	210	95	20,000	16,200
Thomas	*	*	*	*
District total	1,000	95	95,000	77,000
West Central District:				
Gove				
Greeley				
Lane				
Logan				
Ness	140	110	15,400	12,500
Scott				
Trego	*	*	*	*
Wallace				
Wichita				
District total	150	110	16,500	13,400
Southwest District:				
Clark	630	95	60,000	48,700
Finney	200	95	19,100	15,500
Ford	70	95	6,700	5,400
Grant	*	*	*	*
Gray				
Hamilton	*	*	*	*
Haskell				
Hodgeman	*	*	*	*
Kearny				
Meade	70	95	6,600	5,300
Morton				
Seward				
Stanton				
Stevens				
District total	1,050	95	100,000	81,000
North Central District:				
Clay	330	90	29,700	24,100
Cloud	50	90	4,500	3,600
Jewell	460	90	41,400	33,500
Mitchell	310	90	27,900	22,600
Osborne	1,950	90	175,500	142,200
Ottawa	2,400	90	216,000	175,000
Phillips	380	90	34,200	27,700
Republic	870	90	78,300	63,400
Rooks	360	90	32,400	26,200
Smith	1,330	90	119,790	97,000
Washington	360	90	32,400	26,200
District total	8,800	90	792,000	641,500
Central District:				
Barton	1,520	95	144,400	117,000
Dickinson	920	95	87,400	70,800
Ellis	*	*	*	*
Ellsworth	320	95	3,400	24,600
Lincoln	390	95	37,000	30,000
McPherson	3,170	95	301,200	243,900
Marion	900	95	85,500	69,300
Rice	1,590	95	151,100	122,400
Rush	*	*	*	*
Russell	280	95	26,600	21,500
Saline	1,460	95	138,700	112,400
District total	10,600	95	1,007,000	815,700

ALFALFA SEED, 1979—*Concluded*

County	Acres* harvested	Yield per acre, pounds	Production, pounds	Farm value, dollars
South Central District:				
Barber	1,000	95	95,000	77,000
Comanche	730	95	69,300	56,100
Edwards	550	95	52,300	42,400
Harper	450	95	42,700	34,600
Harvey	400	95	38,000	30,800
Kingman	510	95	48,500	39,300
Kiowa	320	95	30,400	24,600
Pawnee	570	95	54,100	43,800
Pratt	470	95	44,700	36,200
Reno	4,180	95	397,100	321,700
Sedgwick	1,840	95	174,800	141,600
Stafford	3,140	95	298,300	241,600
Sumner	740	95	70,300	56,900
District total	14,900	95	1,415,500	1,146,600
Northeast District:				
Atchison	*	*	*	*
Brown	270	110	29,700	24,100
Doniphan	*	*	*	*
Jackson				
Jefferson	*	*	*	*
Leavenworth	90	110	9,900	8,000
Marshall	260	110	28,600	23,200
Nemaha				
Pottawatomie	90	110	9,900	8,000
Riley	340	110	37,400	30,200
Wyandotte				
District total	1,100	110	121,000	98,000
East Central District:				
Anderson	150	110	16,500	13,400
Chase	250	110	27,500	22,300
Coffey	180	110	19,800	16,000
Douglas	*	*	*	*
Franklin	540	110	59,400	48,100
Geary	250	110	27,500	22,300
Johnson	190	110	20,900	16,900
Linn				
Lyon	130	110	14,300	11,600
Miami	150	110	16,500	13,400
Morris	200	110	22,000	17,800
Osage	*	*	*	*
Shawnee	60	110	6,600	5,300
Wabaunsee	450	110	49,500	40,100
District total	2,600	110	286,000	231,700
Southeast District:				
Allen	*	*	*	*
Bourbon	100	90	9,000	7,300
Butler	820	90	73,800	59,700
Chautauqua	90	90	8,100	6,600
Cherokee	110	90	9,900	8,000
Cowley	760	90	68,400	55,300
Crawford	55	90	4,900	4,000
Elk				
Greenwood	110	90	9,900	8,000
Labette	200	90	18,000	14,600
Montgomery	90	90	8,100	6,600
Neosho	130	90	11,700	9,500
Wilson	200	90	18,000	14,600
Woodson	110	90	9,900	8,000
District total	2,800	90	252,000	204,100
State	43,000	95	4,085,000	3,309,000

* Counties with harvested acreage of less than 50 acres not shown separately, but included in district and state totals.

ALFALFA SEED, 1980

County	Acres * harvested	Yield per acre, pounds	Production, pounds	Farm value, dollars
Northwest District:				
Cheyenne				
Decatur	*	*	*	*
Graham	60	100	6,000	4,500
Norton	1,120	100	112,000	84,000
Rawlins	150	100	15,000	11,300
Sheridan				
Sherman				
Thomas				
District total	1,350	100	135,000	101,300
West Central District:				
Gove				
Greeley				
Lane	130	90	11,700	8,800
Logan				
Ness	100	90	9,000	6,800
Scott				
Trego				
Wallace				
Wichita	140	90	12,600	9,400
District total	370	90	33,300	25,000
Southwest District:				
Clark	80	105	8,400	6,300
Finney	660	105	69,300	52,000
Ford	1,140	105	119,700	89,800
Grant	200	105	21,000	15,700
Gray	330	105	34,700	26,000
Hamilton				
Haskell				
Hodgeman				
Kearny				
Meade	1,310	105	137,500	103,100
Morton				
Seward				
Stanton				
Stevens				
District total	3,720	105	390,600	292,900
North Central District:				
Clay	550	95	52,300	39,200
Cloud	730	95	69,400	52,000
Jewell	1,860	95	176,700	132,500
Mitchell	1,060	95	100,700	75,500
Osborne	2,200	95	209,000	156,700
Ottawa	1,000	95	95,000	71,200
Phillips	490	95	46,600	34,900
Republic	1,910	95	181,400	136,000
Rooks	980	95	93,100	69,800
Smith	2,430	95	230,800	173,400
Washington	1,180	95	112,100	84,100
District total	14,390	95	1,367,100	1,025,300
Central District:				
Barton	2,170	95	206,100	154,600
Dickinson	2,260	95	214,700	161,000
Ellis				
Ellsworth	200	95	19,000	14,200
Lincoln	1,010	95	95,900	71,900
McPherson	1,260	95	119,700	89,800
Marion	510	95	48,500	36,400
Rice	630	95	59,900	44,960
Rush	100	95	9,500	7,100
Russell	910	95	86,500	64,900
Saline	2,790	95	265,000	198,800
District total	11,840	95	1,124,800	843,600

ALFALFA SEED, 1980—*Concluded*

County	Acres * harvested	Yield per acre, pounds	Production, pounds	Farm value, dollars
South Central District:				
Barber	640	105	67,200	50,400
Comanche	890	105	93,500	70,100
Edwards	490	105	51,500	38,600
Harper	400	105	42,000	31,500
Harvey	410	105	43,100	32,300
Kingman	810	105	85,100	63,800
Kiowa	400	105	42,000	31,500
Pawnee	2,650	105	275,800	206,800
Pratt	420	105	44,100	33,100
Reno	3,460	105	360,800	270,600
Sedgwick	1,390	105	146,000	109,500
Stafford	3,970	105	414,300	310,800
Sumner	260	105	27,300	20,500
District total	16,190	105	1,692,700	1,269,500
Northeast District:				
Atchison	60	110	6,600	5,000
Brown	150	110	16,500	12,400
Doniphan	*	*	*	*
Jackson	100	110	11,000	8,300
Jefferson	270	110	29,700	22,300
Leavenworth	*	*	*	*
Marshall	400	110	44,000	33,000
Nemaha	50	110	5,500	4,100
Pottawatomie	350	110	38,500	28,900
Riley	470	110	51,700	38,700
Wyandotte				
District total	1,900	110	209,000	156,800
East Central District:				
Anderson	250	105	26,200	19,600
Chase	910	105	95,500	71,800
Coffey	130	105	13,700	10,300
Douglas	470	105	49,300	37,000
Franklin	590	105	61,900	46,400
Geary	520	105	54,600	40,900
Johnson	*	*	*	*
Linn	100	105	10,500	7,900
Lyon	400	105	42,000	31,500
Miami	110	105	11,600	8,700
Morris	90	105	9,500	7,100
Osage	150	105	15,800	11,800
Shawnee	230	105	24,200	18,100
Wabaunsee	710	105	74,500	55,900
District total	4,700	105	493,500	370,100
Southeast District:				
Allen	60	100	6,000	4,500
Bourbon	90	100	9,000	6,800
Butler	2,200	100	220,000	164,900
Chautauqua	90	100	9,000	6,800
Cherokee	110	100	11,000	8,300
Cowley	1,840	100	184,000	137,900
Crawford	350	100	35,000	26,300
Elk	240	100	24,000	18,000
Greenwood	3,750	100	375,000	281,100
Labette	170	100	17,000	12,800
Montgomery	180	100	18,000	13,500
Neosho	*	*	*	*
Wilson	100	100	10,000	7,500
Woodson	350	100	35,000	26,300
District total	9,540	100	954,000	715,500
State	64,000	100	6,400,000	4,800,000

* Counties with harvested acreage of less than 50 acres not shown separately, but included in district and state totals.

RED CLOVER SEED, 1979

County	Acres * harvested	Yield per acre, pounds	Production, pounds	Farm value, dollars
North Central District:				
Cloud	130	80	10,400	5,500
Osborne	*	*	*	*
Smith	*	*	*	*
District total	160	80	12,800	6,700
Central District:				
Dickinson	*	*	*	*
Rush	*	*	*	*
Russell	*	*	*	*
District total	80	80	6,400	3,300
South Central District:				
Harvey	*	*	*	*
Kingman	*	*	*	*
Reno	*	*	*	*
Sedgwick	80	80	6,400	3,400
Stafford	*	*	*	*
Sumner	*	*	*	*
District total	170	80	13,600	7,100
Northeast District:				
Atchison	840	75	63,000	32,800
Brown	450	75	33,700	17,600
Doniphan	130	75	9,800	5,100
Jackson	80	75	6,000	3,100
Jefferson	230	75	17,200	9,000
Leavenworth	110	75	8,300	4,300
Marshall	170	75	12,700	6,600
Pottawatomie	*	*	*	*
Riley	*	*	*	*
District total	2,060	75	154,500	80,500
East Central District:				
Anderson	500	85	42,500	22,000
Coffey	400	85	34,000	17,700
Douglas	150	85	12,800	6,700
Franklin	140	85	11,900	6,200
Johnson	*	*	*	*
Linn	180	85	15,300	8,000
Lyon	*	*	*	*
Miami	240	85	20,400	10,600
Morris	50	85	4,200	2,200
Osage	330	85	28,000	14,600
District total	2,060	85	175,100	91,100
Southeast District:				
Allen	230	80	18,400	9,600
Bourbon	300	80	24,000	12,400
Cherokee	150	80	12,000	6,300
Cowley	*	*	*	*
Crawford	220	80	17,600	9,200
Labette	230	80	18,400	9,600
Montgomery	*	*	*	*
Neosho	280	80	22,400	11,600
District total	1,470	80	117,600	61,300
State	6,000	80	480,000	250,000

* Counties with harvested acreage of less than 50 acres not shown separately, but included in district and state totals.

RED CLOVER SEED, 1980

County	Acres * harvested	Yield per acre, pounds	Production, pounds	Farm value, dollars
North Central District:				
Cloud	*	*	*	*
Jewell	60	70	4,200	2,400
Republic	*	*	*	*
Washington	220	70	15,400	9,000
District total	330	70	23,100	13,400
Central District:				
Dickinson	*	*	*	*
Marion	70	80	5,600	3,200
Rush	*	*	*	*
Saline	*	*	*	*
District total	110	80	8,800	5,100
South Central District:				
Harper	*	*	*	*
Harvey	*	*	*	*
Reno	*	*	*	*
Sedgwick	*	*	*	*
Sumner	*	*	*	*
District total	60	80	4,800	2,800
Northeast District:				
Atchison	1,210	70	84,700	49,200
Brown	260	70	18,200	10,600
Doniphan	320	70	22,400	13,000
Jackson	60	70	4,200	2,400
Jefferson	320	70	22,400	13,000
Leavenworth	250	70	17,500	10,100
Marshall	130	70	9,100	5,300
Nemaha	60	70	4,200	2,400
Riley	50	70	3,500	2,000
District total	2,660	70	186,200	108,000
East Central District:				
Anderson	230	80	18,400	10,700
Coffey	130	80	10,400	6,000
Douglas	470	80	37,600	21,800
Franklin	180	80	14,400	8,300
Johnson	200	80	16,000	9,300
Linn	130	80	10,400	6,000
Miami	240	80	19,200	11,100
Morris	*	*	*	*
Osage	*	*	*	*
Shawnee	*	*	*	*
District total	1,650	80	132,000	76,500
Southeast District:				
Allen	*	*	*	*
Bourbon	220	80	17,600	10,200
Cherokee	60	80	4,800	2,800
Cowley	*	*	*	*
Crawford	130	80	10,400	6,000
Greenwood	440	80	35,100	20,300
Labette	*	*	*	*
Montgomery	50	80	4,000	2,300
Neosho	200	80	16,000	9,300
District total	1,190	80	95,100	55,200
State	6,000	75	450,000	261,000

* Counties with harvested acreage of less than 50 acres not shown separately, but included in district and state totals.

TALL FESCUE SEED*

County	1979			1980		
	Acres harvested	Production, pounds	Farm value, dollars	Acres harvested	Production, pounds	Farm value, dollars
West Central District:						
District total	250	56,300	10,100			
North Central District:						
District total	150	33,800	6,100			
Central District:						
District total				450	67,500	18,500
South Central District:						
District total	300	67,500	12,200	700	105,000	28,900
Northeast District:						
District total	250	56,200	10,100	150	22,500	6,200
East Central District:						
Anderson	1,000	225,000	40,500			
Linn	3,600	810,000	145,800	1,850	277,500	76,300
Miami	400	90,000	16,200	650	97,500	26,800
Wabaunsee				400	60,000	16,500
District total	5,650	1,271,200	228,900	3,550	532,500	146,400
Southeast District:						
Allen	800	180,000	32,400	320	48,000	13,200
Bourbon	2,550	573,700	103,300	460	69,000	19,000
Cherokee	1,200	270,000	48,600	670	100,500	27,600
Cowley	1,250	281,300	50,600			
Crawford	5,100	1,147,500	206,600	2,760	414,000	113,800
Greenwood				380	57,000	15,700
Labette	5,400	1,215,000	218,800	3,030	454,500	124,900
Montgomery	1,450	326,300	58,700	1,190	178,500	49,100
Neosho	1,650	371,200	66,800	2,280	342,000	94,000
Wilson				370	55,500	15,300
Woodson	600	135,000	24,300			
District total	20,400	4,590,000	826,600	12,150	1,822,500	501,000
State	27,000	6,075,000	1,094,000	17,000	2,550,000	701,000

* Counties with harvested acreage of less than 300 acres not shown separately, but included in district and state totals.

BARLEY

District	1980					1981				
	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District: District Total	2,600	1,800	42.8	77,000	161,100	2,600	2,300	23.8	55,000	124,200
West Central Dist.: District Total	5,600	4,700	43.2	203,000	424,800	4,500	3,700	24.6	91,000	205,300
Southwest District: District Total	14,100	12,300	34.1	419,000	876,800	16,000	12,400	24.5	304,000	686,700
North Central Dist.: District Total	2,700	2,400	42.1	101,000	211,300	3,100	2,800	38.4	107,000	241,700
Central District: District Total	5,800	5,200	40.6	211,000	507,800	8,500	7,300	40.0	292,000	683,800
South Central Dist.: District Total	15,900	12,600	42.8	539,000	1,325,300	14,500	12,000	33.6	404,000	993,400
Northeast District: District Total	2,500	2,200	44.1	97,000	233,400	1,600	1,200	42.4	51,000	120,300
East Central Dist.: District Total	3,300	3,000	45.0	135,000	324,900	4,900	3,700	32.7	121,000	285,500
Southeast District: District Total	7,500	6,800	45.4	309,000	743,600	7,300	6,600	36.3	239,000	563,800
State	60,000	51,000	41.0	2,091,000	4,809,000	63,000	52,000	32.0	1,664,000	3,910,000

LESPEDEZA SEED *

County	1979			1980		
	Acres harvested	Production, pounds	Farm value, dollars	Acres harvested	Production, pounds	Farm value, dollars
Central District:						
Marion				170	22,100	8,000
District total	40	9,200	1,900	240	31,200	11,400
South Central District:						
District total				80	10,400	3,800
Northeast District:						
Riley				290	37,700	13,800
District total	100	23,000	4,700	430	55,900	20,400
East Central District:						
Douglas				190	24,700	9,000
District total	110	25,300	5,200	330	42,900	15,600
Southeast District:						
Butler				870	113,100	41,200
Chautauqua				120	15,600	5,700
Cherokee	400	92,000	18,900	200	26,000	9,500
Cowley				130	16,900	6,200
Crawford	4,300	989,000	203,000	830	107,900	39,300
Greenwood	110	25,300	5,200			
Labette	2,340	538,200	110,400	1,070	139,100	50,700
Neosho	2,330	535,900	110,000	670	87,100	31,800
Wilson	100	23,000	4,700			
District total	9,750	242,500	460,200	3,920	509,600	185,800
State	10,000	2,300,000	472,000	5,000	650,000	237,000

* Counties with harvested acreage of less than 100 acres not shown separately, but included in district and state totals.

RYE

District	1980					1981				
	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars	Acres planted	Acres harvested	Yield per acre, bushels	Production, bushels	Farm value, dollars
Northwest District:										
District Total	4,400	300	20.8	16,600	40,000	7,500	2,500	16.6	41,500	112,000
West Central Dist.:										
District Total	3,200	600	20.8	12,500	29,900	3,500	900	17.4	15,700	42,400
Southwest District:										
District Total	9,600	1,200	21.9	26,300	63,300	11,600	1,100	17.4	19,100	51,600
North Central Dist:										
District Total	3,700	700	20.0	14,000	33,800	7,300	700	22.6	15,800	42,600
Central District:										
District Total	10,600	1,700	21.9	37,300	89,400	10,800	1,500	24.5	36,800	99,300
South Central Dist.:										
District Total	20,900	3,400	17.7	60,200	144,600	24,100	3,600	23.9	85,900	231,700
Northeast District:										
District Total	2,800	300	25.3	7,600	18,200	3,000	400	17.0	6,800	18,400
East Central Dist.:										
District Total	2,200	400	26.5	10,600	25,200	4,300	1,000	24.6	24,600	66,300
Southeast District:										
District Total	2,600	900	27.7	24,900	59,600	2,900	300	19.3	5,800	15,700
State	60,000	10,000	21.0	210,000	504,000	75,000	12,000	21.0	252,000	680,000

SUGAR BEETS

County	1980			1981		
	Acres harvested	Yield per acre, tons	Production, tons	Acres harvested	Yield per acre, tons	Production, tons
Northwest District:						
Cheyenne	2,050	17.4	35,750	1,550	21.8	33,800
Sheridan	1,100	16.4	18,050	1,050	17.0	17,900
Sherman	10,000	12.7	127,000	9,800	19.7	193,100
District total	13,150	13.8	180,800	12,400	19.7	244,800
West Central District:						
Wallace	1,350	14.2	19,200	1,600	24.5	39,200
District total	1,350	14.2	19,200	1,600	24.5	39,200
State	14,500	13.8	200,000	14,000	20.3	284,000

POPCORN

County	1980			1981		
	Acres harvested	Yield per acre, pounds	Production, pounds	Acres harvested	Yield per acre, pounds	Production, pounds
Northwest District:						
Thomas	150	2,020	303,000			
District total	150	2,020	303,000			
West Central District:						
Wichita	250	2,150	537,500	1,100	3,730	4,103,000
District total	250	2,150	537,500	1,100	3,730	4,103,000
Southwest District:						
Finney	150	2,150	322,500			
Grant	2,000	2,210	4,423,000	350	3,830	1,340,000
Gray	30	2,000	60,000			
Haskell	100	1,100	110,000	200	2,440	488,000
Meade	590	2,600	1,534,000			
Seward	80	2,000	160,000			
Stanton	200	2,700	540,000	300	4,180	1,254,000
District total	3,150	2,270	7,149,500	850	3,630	3,082,000
Northeast District:						
Atchison				150	1,690	253,000
Doniphan	50	1,600	80,000			
Jefferson	500	780	390,000	550	1,980	1,089,000
Nemaha				150	1,290	193,000
District total	550	850	470,000	850	1,810	1,535,000
East Central District:						
Douglas	100	530	530,000	100	1,800	180,000
District total	100	530	530,000	100	1,800	180,000
State	4,200	2,140	8,990,000	2,900	3,070	8,900,000

COMMERCIAL APPLES AND PEACHES, 1980

County	Apples [1]		Peaches [1]	
	Production, pounds	Farm value, dollars	Production, pounds	Farm value, dollars
North Central District:				
Clay	51,200	4,500		
Osborne	98,600	8,600		
Republic	144,600	12,600		
District total	379,200	33,100	76,000	15,000
Central District:				
Dickinson	45,500	5,500		
McPherson	502,700	60,300	40,600	8,300
Marion	84,100	10,100		
Rice	591,500	70,800	73,800	15,000
Rush	197,200	23,600	153,400	31,300
Saline	188,600	22,500	74,000	15,100
District total	1,657,300	198,500	416,800	85,000
South Central District:				
Harvey	114,500	13,300		
Kingman	46,800	5,400	44,600	9,100
Pawnee	72,700	8,500		
Reno	342,600	39,800	158,600	32,200
Sedgwick	733,200	85,400	3,200,200	649,200
Stafford	69,000	8,000	43,100	8,700
Sumner	537,800	62,500	503,400	102,100
District total	1,955,400	227,400	4,031,800	817,900
Northeast District:				
Atchison	441,600	36,100		
Doniphan	3,909,700	320,200	144,600	30,100
Jackson	42,200	3,500		
Jefferson	93,700	7,700	80,500	16,700
Leavenworth	106,800	8,800	164,700	34,200
Riley	169,100	13,800		
Wyandotte	52,100	4,300	343,700	71,400
District total	4,894,900	401,000	847,200	176,000
East Central District:				
Chase	94,200	9,400		
Douglas	94,400	9,400	209,100	39,100
Franklin	82,800	8,200		
Johnson	277,200	27,700	71,800	13,400
Linn	55,100	5,500	218,200	40,800
Lyon	51,600	5,100		
Miami	140,000	14,000	66,000	12,400
Morris			57,300	10,700
District total	940,300	93,600	719,500	134,600
Southeast District:				
Bourbon	43,100	4,000		
Cherokee	73,000	6,700	52,100	9,000
Cowley			131,200	22,700
Crawford	46,400	4,300		
Labette	114,900	10,500		
Montgomery	375,700	34,300	46,600	8,100
Neosho	154,700	14,200		
Wilson	73,000	6,700		
Woodson	141,000	12,900		
District total	1,172,900	107,400	325,600	56,400
State	11,000,000	1,061,000	6,500,000	1,300,000

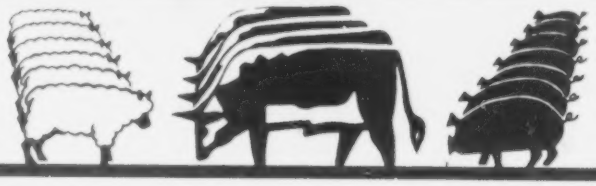
1. Counties producing less than 40,000 lbs. are not shown separately, but are included in district totals.

COMMERCIAL APPLES AND PEACHES, 1981

County	Apples [1]		Peaches [1]	
	Production, pounds	Farm value, dollars	Production, pounds	Farm value, dollars
Northwest District:				
District total			20,000	5,200
West Central District:				
District total			17,400	5,000
Southwest District:				
District total			47,300	13,400
North Central District:				
Clay	119,700	12,400		
Cloud	82,300	8,600		
Osborne	199,400	20,600		
Republic	376,900	39,100		
Washington	49,400	5,100	42,000	11,000
District total	934,700	96,900	126,600	33,100
Central District:				
McPherson	182,000	26,400	42,400	13,700
Marion	59,800	8,700		
Rice	356,500	51,800	104,300	33,800
Rush			180,000	58,300
Saline	72,800	10,600	66,500	21,600
District total	768,400	111,700	474,700	153,800
South Central District:				
Harvey	207,400	32,900		
Kingman	44,900	7,100	44,800	15,200
Pawnee			47,900	16,300
Reno	548,400	87,200	211,800	72,000
Sedgwick	224,400	35,700	2,763,000	939,300
Stafford	59,800	9,500	51,300	17,400
Sumner	484,600	77,000	734,900	249,800
District total	1,652,500	262,600	3,932,800	1,336,900
Northeast District:				
Atchison	592,100	53,300		
Brown	41,400	3,700		
Doniphan	6,003,400	540,700	71,700	21,000
Jackson	82,800	7,500		
Jefferson	717,900	64,700		
Leavenworth	107,700	9,700	137,700	40,400
Marshall	74,800	6,700		
Nemaha	41,400	3,700		
Pottawatomie	106,600	9,600		
Riley	426,300	38,400		
Wyandotte	497,300	44,800	279,400	82,000
District total	8,691,700	782,800	626,400	183,800
East Central District:				
Chase	150,400	16,500		
Douglas	69,800	7,600	184,000	52,300
Franklin	52,300	5,700	53,800	15,300
Geary	49,900	5,400		
Johnson	155,800	17,100	91,100	25,900
Linn			114,000	32,400
Miami	292,000	32,000	73,300	20,900
District total	961,600	105,400	685,500	194,900
Southeast District:				
Allen	93,500	9,800		
Bourbon	118,400	12,300		
Butler			50,200	13,500
Cherokee			125,400	33,700
Cowley	43,800	4,600	82,100	22,100
Crawford			66,000	17,700
Labette	48,600	5,000	62,700	16,800
Montgomery	188,500	19,700	46,900	12,600
Neosho	228,800	23,900		
Wilson	40,400	4,200		
Woodson	116,000	12,200		
District total	991,100	103,600	569,300	152,900
State	14,000,000	1,463,000	6,500,000	2,079,000

1. Counties producing less than 40,000 lbs. are not shown separately, but are included in district totals.

CATTLE HOGS AND SHEEP



BY G. ERIC WALDHAUS

CATTLE INVENTORY DOWN

Cattle and calves on Kansas farms totaled 6.0 million head on January 1, 1982, down seven percent from a year earlier. Beef cow numbers were down four percent, at 1,826,000 head, while milk cow numbers increased slightly to 124,000 head. Calves born in 1981 totaled 1.77 million, down four percent from the previous year. The average value per head of the cattle and calf inventory, at $345 on January 1, 1982, was down from $405 a year earlier. In 1981 there were 52,000 operations with cattle in Kansas, unchanged from the 1980 estimate. Cattle on feed for the slaughter market were estimated at 1.11 million head on January 1, 1982, up slightly from the January 1, 1981 cattle on feed inventory.

HOG AND PIG NUMBERS OFF

There were 1,770,000 hogs and pigs on Kansas farms on December 1, 1981, seven percent less than the previous year. The breeding hog inventory, at 207,000 head, was off 17 percent, while market hogs stood at 1,563,000 head, down five percent. Hogs and pigs averaged $63.00 per head compared to $64.50 on December 1, 1980. The December-May 1981 pig crop totaled 1,507,000 head, off eight percent, while the June-November pig crop, at 1,431,000 head, was up slightly from a year ago. The number of Kansas operations with hogs declined seven percent to 13,000 on December 1, 1981.

FEWER SHEEP AND LAMBS

The Kansas inventory of sheep and lambs was placed at 200,000 head on January 1, 1982, off nine percent from 1981. Sheep and lambs on feed numbered 60,000 on January 1, 1982, off 25 percent, while stock sheep were unchanged from a year earlier at 140,000 head. Lambs saved in 1981 totaled 140,000 head, three percent less than in 1980. The number of Kansas farms with sheep increased to 2,700, up 200 from 1980. The value of sheep and lambs on January 1, 1982 was set at $10,700,000, off 21 percent from a year earlier. Shorn wool production during 1981 amounted to 1,684,000 pounds, valued at $1,347,000 or 80 cents per pound, compared to 1,794,000 pounds shorn at 77 cents per pound in 1980.

RED MEAT PRODUCTION UP SUBSTANTIALLY

Kansas commercial red meat production in 1981 totaled 2.7 billion pounds, a 21 percent increase from 1980. This increase was due to a 22 percent increase in the number of cattle slaughtered. The 3.6 million cattle slaughtered elevated Kansas to third among the states in cattle killed in 1981. The hog slaughter, at 1,515,600 head, was up four percent. The sheep and lamb slaughter, at 5,300 head in 1981, compared to 4,500 head in 1980. Calf slaughter, at 300 head, remained unchanged from the 1980 level.

LIVESTOCK AND POULTRY ON FARMS, January 1

Classes of Livestock and Poultry	1981		1982	
	Number	Farm value, dollars	Number	Farm value, dollars
All cattle and calves	6,450,000	2,612,250,000	6,000,000	2,070,000,000
Beef cows	1,897,000	834,680,000	1,826,000	657,360,000
Milk cows	123,000	138,990,000	124,000	142,600,000
Other cattle and calves	4,430,000	1,638,580,000	4,050,000	1,270,040,000
All sheep and lambs	220,000	13,530,000	200,000	10,700,000
Hogs and pigs*	1,900,000	122,550,000	1,770,000	111,510,000
All Chickens*	2,140,000	3,424,000	2,266,000	3,399,000
Total value of livestock		2,751,754,000		2,195,609,000

* December 1 preceding year.

PRODUCTION AND VALUE, 1972-81

Year	Chickens (Excludes commercial broilers)		Turkeys		Honey		Wool	
	Quantity (000 No.)	Farm value (000 dollars)	Quantity (000 No.)	Farm value (000 dollars)	Quantity (000 lbs.)	Farm value (000 dollars)	Quantity (000 lbs.)	Farm value (000 dollars)
1972	2,830	638	285	1,310	3,200	912	2,800	756
1973	2,865	1,180	210	1,698	2,250	954	2,444	1,564
1974	2,715	1,030	165	1,016	1,892	986	2,116	1,100
1975	2,386	611	154	1,417	2,162	1,100	1,573	613
1976	2,484	1,220	108	968	2,600	1,212	1,483	905
1977	1,990	1,148	113	999	2,392	1,160	1,702	1,140
1978	1,940	1,432	129	1,249	2,580	1,507	1,712	1,181
1979	1,630	1,627	184	1,619	2,000	1,344	1,784	1,392
1980	1,360	1,251	132	1,214	2,150	1,241	1,794	1,381
1981	1,940	828	221	1,459	1,960	1,460	1,684	1,347

FEED SUPPLIES AVAILABLE FOR LIVESTOCK, 1972-81

Feeding Year	Grain				Roughage					Grain and roughage supply T.D.N.[3]
	Feed grains[1]		Cereal grains fed	Total supply	Hay		Sorghum forage	Sorghum and corn silage	Hay equivalent of all roughage[2]	
	Production	Farm carryover			Production	Farm carryover				
	1,000 Tons									
1972-73	9,925	476	164	10,565	5,549	1,209	1,440	8,500	10,311	13,608
1973-74	10,559	289	66	10,914	5,796	832	1,050	8,175	9,878	13,670
1974-75	7,542	342	59	7,943	4,229	985	897	6,439	7,809	10,259
1975-76	8,183	172	54	8,409	4,890	719	378	5,559	7,651	10,553
1976-77	9,621	227	143	9,991	4,685	929	494	6,574	8,052	12,019
1977-78	11,331	458	230	12,019	5,445	703	1,050	7,955	9,325	14,278
1978-79	9,921	649	83	10,653	4,720	1,089	728	5,749	8,089	12,567
1979-80	11,833	694	77	12,604	5,840	755	1,360	7,760	9,862	15,014
1980-81	7,422	661	65	8,148	4,102	993	1,173	6,291	7,779	10,408
1981-82	11,304	328	75	11,707	6,070	697	1,200	6,670	9,590	14,161

1. Sorghum grain, corn, barley and oats.
2. Assumes 3 tons of silage or 2 tons of dry forage are equivalent to 1 ton of hay.
3. Converted to total digestable nutrients at 0.8 for grain and 0.5 for roughage.

LIVESTOCK SLAUGHTER IN COMMERCIAL PLANTS, 1981 *

Species and Month	Number of head slaughtered [1]	Average liveweight lbs. per head	Total liveweight (000 lbs.) [1]	Dressed weight (000 lbs.) [1]
Cattle				
January	311,300	1,108	344,986	213,988
February	276,000	1,108	305,726	190,246
March	313,000	1,112	347,993	216,895
April	295,100	1,100	324,426	201,882
May	296,800	1,086	322,477	200,670
June	310,300	1,074	333,170	207,323
July	298,100	1,058	315,410	196,272
August	307,800	1,060	326,368	204,067
September	310,400	1,077	334,359	210,731
October	312,000	1,100	343,271	215,663
November	282,800	1,112	314,508	196,652
December	305,200	1,108	338,222	210,805
Total	3,618,800	1,092	3,950,914	2,465,194
Calves [2]				
Total	300	318	93	57
Hogs				
January	122,400	253	30,965	22,388
February	108,600	250	27,135	19,510
March	125,900	242	30,473	22,062
April	131,300	243	31,843	22,991
May	105,600	245	25,839	18,604
June	106,900	244	26,101	18,793
July	109,900	246	27,008	19,473
August	115,500	242	27,945	20,092
September	141,000	239	33,689	24,357
October	150,400	242	36,402	26,319
November	141,000	248	35,006	25,169
December	157,200	249	39,103	28,389
Total	1,515,600	245	371,509	268,147
Sheep and Lambs				
January	300	112	34	17
February	300	118	33	17
March	300	114	39	20
April	500	107	50	27
May	300	113	35	19
June	400	103	41	21
July	500	108	55	28
August	700	108	76	39
September	600	112	65	34
October	500	109	51	26
November	500	113	56	29
December	400	109	42	21
Total	5,300	110	578	298

* Includes slaughter under Federal Inspection and other commercial slaughter; excludes farm slaughter.
1. May not add to total due to rounding.
2. Not published monthly to avoid disclosing individual operations.

RED MEAT PRODUCTION, 1974-81

Year	Number of Plants	Beef	Veal	Pork	Lamb, Mutton	Total Dressed Meat	Value (million dollars)
		(000 pounds)					
1974	216	1,668,419	428	345,725	336	2,014,908	1,565.1
1975	205	1,737,250	1,305	207,206	368	1,946,129	1,426.7
1976	204	1,881,027	295	155,127	233	2,036,682	1,296.2
1977	205	1,989,670	234	183,938	237	2,174,079	1,370.6
1978	207	1,916,200	204	193,308	244	2,109,956	1,712.4
1979	202	1,876,070	65	245,291	216	2,121,642	2,121.0
1980	201	1,994,140	59	257,241	259	2,251,699	2,315.2
1981	194	2,465,194	57	268,147	298	2,733,696	2,713.7

CATTLE AND CALVES, INVENTORY, SUPPLY AND DISPOSITION, 1974-81

Year	Inventory Beginning of Year	Calf Crop	Inship-ments	Marketings		Farm Slaughter	Deaths	
				Cattle	Calves		Cattle	Calves
	1,000 Head							
1974	6,990	2,000	1,650	3,956	42	12	80	150
1975	6,400	1,880	2,168	3,678	53	7	110	150
1976	6,450	1,670	2,650	4,108	56	6	85	115
1977	6,400	1,550	3,055	4,715	63	7	100	120
1978	6,000	1,650	3,230	4,363	61	6	100	150
1979	6,200	1,680	2,864	4,248	56	6	94	140
1980	6,200	1,850	2,712	4,021	52	6	88	145
1981	6,450	1,770	2,130	4,077	77	6	70	120

CATTLE AND CALVES, PRODUCTION AND INCOME, 1974-81

Year	Production (000 lbs.)	Marketings (000 lbs.)	Avg. Price Per Cwt.		Value of Production (000 dollars)	Cash Receipts (000 dollars)	Value of Home Consumption (000 dollars)	Gross Income (000 dollars)
			Cattle (dollars)	Calves (dollars)				
1974	2,739,800	4,114,580	34.40	38.80	940,978	1,416,015	14,198	1,430,213
1975	2,393,795	3,728,395	29.80	26.40	714,807	1,110,440	7,165	1,117,605
1976	2,579,350	4,252,730	34.40	35.40	887,052	1,463,127	7,047	1,470,174
1977	2,701,240	4,982,810	35.00	39.00	944,175	1,744,847	8,539	1,753,386
1978	2,586,490	4,608,140	52.10	60.20	1,354,318	2,402,284	10,774	2,413,058
1979	2,660,520	4,556,840	70.10	92.60	1,873,392	3,197,531	24,934	3,222,465
1980	2,766,030	4,351,650	65.30	76.50	1,811,855	2,843,146	21,891	2,865,037
1981	2,753,420	4,433,570	59.00	65.90	1,622,505	2,617,431	12,166	2,629,597

HOGS AND PIGS, INVENTORY, SUPPLY AND DISPOSITION, 1974-81

Year	On Hand Dec. 1 Prev. Year	Pig Crop		Inshipments	Marketings	Farm Slaughter	Deaths
		Dec.-May	June-Nov.				
	1,000 Head						
1974	2,000	1,540	1,351	195	3,201	15	120
1975	1,750	1,089	1,191	199	2,442	12	125
1976	1,650	1,403	1,346	229	2,617	11	150
1977	1,850	1,655	1,485	233	3,077	13	133
1978	2,000	1,417	1,513	216	2,974	12	160
1979	2,000	1,604	1,648	325	3,305	12	170
1980	2,090	1,646	1,426	225	3,300	12	175
1981	1,900	1,507	1,431	146	3,059	10	145

HOGS AND PIGS, PRODUCTION AND INCOME, 1974-81

Year	Production (000 lbs.)	Marketings (000 lbs.)	Average Price Per Cwt. (dollars)	Value of Production (000 dollars)	Cash Receipts (000 dollars)	Value of Home Consumption (000 dollars)	Gross Income (000 dollars)
1974	747,150	776,100	34.40	257,020	266,978	4,334	271,312
1975	582,405	586,345	45.00	258,799	263,975	6,480	270,455
1976	643,220	618,275	44.10	279,756	272,764	5,821	278,585
1977	738,785	713,795	40.00	292,202	285,667	4,992	290,659
1978	686,235	680,855	47.00	318,285	320,908	6,768	327,676
1979	795,985	794,080	41.90	329,536	332,995	6,159	339,154
1980	776,443	794,388	36.90	283,878	293,488	4,339	297,827
1981	722,452	736,786	42.80	307,484	315,736	4,194	319,930

SHEEP AND LAMBS, INVENTORY, SUPPLY AND DISPOSITION, 1974-81

Year	Inventory Beginning of Year	Lamb Crop	Inship-ments	Marketings		Farm Slaughter	Deaths	
				Sheep	Lambs		Sheep	Lambs
	1,000 Head							
1974	290	180	50	43	221	1	15	20
1975	220	147	62	35	196	1	14	18
1976	165	120	64	8	147	1	9	11
1977	173	126	93	17	145	1	10	14
1978	205	124	88	7	163	1	10	16
1979	220	134	114	20	188	1	9	15
1980	235	145	94	31	195	1	8	19
1981	220	140	50	14	170	1	8	17

SHEEP AND LAMBS, PRODUCTION AND INCOME, 1974-81

Year	Production (000 lbs.)	Marketings (000 lbs.)	Avg. Price Per Cwt.		Value of Production (000 dollars)	Cash Receipts (000 dollars)	Value of Home Consumption (000 dollars)	Gross Income (000 dollars)
			Sheep (dollars)	Lambs (dollars)				
1974	14,738	25,098	9.60	38.90	5,621	8,251	57	8,308
1975	12,333	21,918	7.70	39.50	4,832	7,322	58	7,380
1976	11,173	14,239	10.00	48.40	5,115	6,523	65	6,588
1977	11,931	15,159	10.10	49.20	5,249	6,660	67	6,727
1978	13,372	17,154	16.20	60.70	7,569	10,039	88	10,127
1979	15,388	21,205	31.00	65.40	9,520	13,042	88	13,130
1980	13,744	21,319	22.00	63.50	7,943	11,994	86	12,080
1981	12,486	16,805	22.30	56.30	6,670	8,890	217	9,107

EGGS, PRODUCTION, DISPOSITION AND INCOME, 1974-81

Year	Eggs Produced (millions)	Home Consumption (millions)	Eggs Sold (millions)	Price Per Dozen (cents)	Cash Receipts (000 dollars)	Value of Home Consumption (000 dollars)	Gross Income (000 dollars)
1974	601	14	587	41.0	20,056	478	20,534
1975	599	13	586	39.4	19,240	427	19,667
1976	564	12	552	45.2	20,792	452	21,244
1977	548	13	535	44.1	19,661	478	20,139
1978	511	13	498	41.8	17,347	453	17,800
1979	483	13	470	49.0	19,192	531	19,723
1980	427	13	414	44.3	15,284	480	15,764
1981	416	13	403	52.6	17,665	570	18,235

MILK, DISPOSITION, INCOME AND VALUE, 1974-81

Year	Combined Marketings of Milk and Cream				Milk Consumed on Farms Where Produced		Gross Farm Income from Milk (000 dollars)	Farm Value of Milk Produced (000 dollars)
	Milk Utilized (mil. lbs.)	Average Returns		Cash Receipts (000 dollars)	(mil. lbs.)	Value (000 dollars)		
		Milk, dollars per cwt.	Milkfat, dollars per pound					
1974	1,355	8.19	2.28	110,978	26	2,129	113,107	114,906
1975	1,347	8.79	2.43	118,460	23	2,022	120,482	122,357
1976	1,403	9.38	2.58	131,609	21	1,970	133,579	135,729
1977	1,399	9.61	2.65	134,442	19	1,826	136,268	138,576
1978	1,342	10.74	2.94	144,147	14	1,504	145,651	147,353
1979	1,302	12.05	3.30	156,865	10	1,205	158,070	160,265
1980	1,303	13.12	3.62	170,998	9	1,181	172,179	174,496
1981	1,369	14.04	3.86	192,197	10	1,404	193,601	196,139

CATTLE, JAN. 1, 1981, AND CALVES BORN, 1981

County	All Cattle and Calves		Cows that have calved		Calves born, 1981	Cattle on feed
	Number	Value, dollars	Beef, Number	Milk, Number	Number	Number
Northwest District:						
Cheyenne	32,700	12,764,600	17,100	400	13,600	4,800
Decatur	48,400	18,893,100	19,900	850	20,300	12,400
Graham	46,000	17,956,300	26,000	500	20,600	300
Norton	47,100	18,385,600	22,600	900	23,400	600
Rawlins	43,600	17,019,400	23,500	1,600	21,200	500
Sheridan	67,800	26,466,000	18,100	1,150	16,000	16,700
Sherman	37,400	14,599,200	8,200	300	6,000	9,300
Thomas	40,000	15,614,100	10,600	200	8,900	7,400
District total	363,000	141,698,300	146,000	5,900	130,000	52,000
West Central District:						
Gove	83,800	37,069,800	21,000	750	19,100	24,500
Greeley	48,000	21,233,300	5,500	50	3,800	27,000
Lane	61,100	27,028,200	7,300	50	5,800	24,800
Logan	51,700	22,870,100	14,700	250	13,700	2,500
Ness	65,400	28,930,400	21,500	450	18,100	900
Scott	147,400	65,204,100	6,500	50	4,900	67,400
Trego	55,000	24,329,800	18,100	900	16,500	7,500
Wallace	20,800	9,201,100	10,700	250	7,300	700
Wichita	80,800	35,742,700	7,500	250	6,900	66,000
District total	614,000	271,609,500	118,000	3,000	96,100	221,300
Southwest District:						
Clark	61,100	26,822,300	11,200	50	8,300	7,100
Finney	127,000	55,751,800	8,800	100	6,000	71,000
Ford	155,000	68,043,500	8,300	900	6,800	74,200
Grant	83,900	36,831,300	6,700	50	4,600	37,000
Gray	100,000	43,899,100	9,000	50	6,600	47,000
Hamilton	34,000	14,925,700	4,800	50	4,400	25,200
Haskell	139,700	61,327,000	7,700	100	6,900	90,300
Hodgeman	81,700	35,865,500	8,100	600	6,600	19,400
Kearny	66,800	29,324,600	7,700	50	5,800	39,900
Meade	43,500	19,096,100	12,100	450	10,400	5,600
Morton	32,900	14,442,800	6,400	100	5,900	1,100
Seward	68,500	30,076,900	4,000	50	3,800	37,900
Stanton	46,300	20,325,300	4,300	50	3,400	26,800
Stevens	39,600	17,384,000	7,900	200	6,200	20,900
District total	1,080,000	474,109,900	107,000	2,800	85,700	503,400
North Central District:						
Clay	62,400	24,255,000	21,700	1,100	22,700	1,400
Cloud	33,600	13,060,400	20,300	500	17,000	1,000
Jewell	56,100	21,806,100	27,100	850	27,500	1,900
Mitchell	50,700	19,707,200	14,700	300	12,500	8,400
Osborne	61,900	24,060,600	22,000	550	18,000	6,200
Ottawa	58,200	22,622,400	16,100	650	13,700	6,800
Phillips	74,400	28,919,400	35,900	400	34,500	500
Republic	59,100	22,972,200	17,000	800	18,200	10,400
Rooks	63,000	24,488,200	24,900	1,100	24,600	2,600
Smith	72,600	28,219,700	30,100	1,050	27,700	2,400
Washington	103,000	40,036,200	24,200	2,600	28,100	5,500
District total	695,000	270,147,400	254,000	9,900	244,500	47,100
Central District:						
Barton	105,500	42,402,400	21,200	700	16,400	45,100
Dickinson	66,000	26,526,600	20,200	1,800	21,500	6,600
Ellis	68,000	27,330,400	21,500	1,350	19,500	23,900
Ellsworth	43,300	17,403,000	24,400	300	23,300	200
Lincoln	57,800	23,230,900	22,300	850	22,600	800
McPherson	64,200	25,803,100	14,700	2,900	15,800	6,600
Marion	89,900	36,132,400	19,700	4,800	25,200	1,100
Rice	63,800	25,642,400	11,200	1,500	10,600	8,400
Rush	32,600	13,102,500	14,300	200	13,400	300
Russell	51,900	20,859,500	24,400	900	22,800	400
Saline	45,000	18,086,300	15,100	1,600	14,300	7,600
District total	688,000	276,519,500	209,000	16,900	205,400	101,000

CATTLE AND CALVES—*Concluded*

County	All Cattle and Calves		Cows that have calved		Calves born, 1981	Cattle on feed
	Number	Value, dollars	Beef, Number	Milk, Number	Number	Number
South Central District:						
Barber	74,200	30,180,300	26,900	750	21,100	1,400
Comanche	48,500	19,727,000	20,000	300	17,500	1,300
Edwards	42,500	17,286,500	7,000	400	5,800	12,600
Harper	71,100	28,919,400	15,700	700	13,300	1,700
Harvey	45,500	18,506,800	6,400	2,250	7,500	2,400
Kingman	56,800	23,102,900	24,400	1,850	20,400	700
Kiowa	39,300	15,985,000	14,000	50	11,900	400
Pawnee	43,100	17,530,600	11,100	400	9,600	11,800
Pratt	48,200	19,605,000	11,700	500	10,100	15,000
Reno	84,400	34,328,900	25,500	4,000	24,700	8,900
Sedgwick	61,800	25,136,700	16,200	7,900	19,200	4,800
Stafford	60,000	24,404,500	17,900	250	14,000	7,900
Sumner	57,600	23,428,300	19,200	1,150	15,500	700
District total	733,000	298,141,900	216,000	20,500	190,600	69,600
Northeast District:						
Atchison	40,100	15,748,600	15,800	1,650	17,200	700
Brown	54,500	21,403,900	22,000	2,650	18,200	2,400
Doniphan	29,000	11,389,200	11,000	950	12,200	1,200
Jackson	63,200	24,820,700	27,900	2,000	27,400	400
Jefferson	54,800	21,521,700	19,500	2,750	21,500	600
Leavenworth	50,400	19,793,700	13,800	3,750	17,600	300
Marshall	66,300	26,038,200	22,300	3,450	21,300	1,800
Nemaha	79,700	31,300,800	20,300	6,000	24,800	1,900
Pottawatomie	79,800	31,340,100	24,900	2,350	22,500	1,100
Riley	39,800	15,630,700	14,500	1,500	14,800	900
Wyandotte	4,400	1,728,000	2,000	250	2,300	100
District total	562,000	220,715,600	194,000	27,300	199,800	11,400
East Central District:						
Anderson	62,900	23,709,400	25,800	2,350	22,100	700
Chase	54,800	20,656,200	21,500	250	21,400	1,400
Coffey	56,000	21,108,600	17,900	500	13,700	800
Douglas	47,600	17,942,300	14,500	3,050	15,700	1,300
Franklin	60,000	22,616,300	20,800	3,150	18,700	2,000
Geary	26,800	10,102,000	11,200	850	12,700	700
Johnson	28,900	10,893,500	11,700	900	12,700	1,100
Linn	51,500	19,412,300	25,400	1,200	27,300	300
Lyon	83,200	31,361,300	21,900	1,100	21,800	11,100
Miami	66,500	25,066,400	26,000	1,950	26,800	600
Morris	82,600	31,135,100	25,800	1,550	27,100	1,200
Osage	50,000	18,846,900	20,900	650	19,300	900
Shawnee	28,900	10,893,500	12,300	550	11,700	800
Wabaunsee	75,300	28,383,500	28,300	1,050	24,800	900
District total	775,000	292,127,300	284,000	19,100	275,800	23,800
Southeast District:						
Allen	48,500	18,945,000	19,400	2,300	16,700	400
Bourbon	80,100	31,288,500	28,900	1,800	29,300	700
Butler	110,000	42,967,900	29,000	1,750	30,500	21,100
Chautauqua	56,300	21,991,800	33,900	500	31,900	1,600
Cherokee	36,800	14,374,700	20,700	350	18,600	800
Cowley	113,000	44,139,800	33,200	1,000	25,800	17,200
Crawford	58,300	22,773,000	27,300	1,250	28,700	1,200
Elk	53,500	20,898,000	27,100	350	19,700	900
Greenwood	113,000	44,139,900	43,200	1,700	38,900	1,300
Labette	74,500	29,101,000	22,200	2,000	23,600	16,100
Montgomery	37,800	14,765,300	18,900	1,200	20,700	300
Neosho	65,900	25,741,700	25,600	2,100	24,400	600
Wilson	45,000	17,577,800	21,400	750	19,200	200
Woodson	47,300	18,476,200	18,200	550	14,100	8,000
District total	940,000	367,180,600	369,000	17,600	342,100	70,400
State	6,450,000	2,612,250,000	1,897,000	123,000	1,770,000	1,100,000

CATTLE, JANUARY 1, 1982

County	All Cattle and Calves		Cows that have calved			Cattle on feed, number
	Number	Value, dollars	Beef, number	Milk, number	Total cows, number	
Northwest District:						
Cheyenne	32,500	10,838,600	15,500	350	15,850	8,400
Decatur	49,200	16,407,600	20,200	900	21,100	10,700
Graham	36,000	12,005,300	23,400	400	23,800	200
Norton	45,700	15,239,900	23,600	800	24,400	500
Rawlins	40,300	13,439,300	22,300	1,750	24,050	400
Sheridan	59,000	19,675,300	17,100	1,150	18,250	12,100
Sherman	35,100	11,704,800	7,000	300	7,300	7,700
Thomas	32,200	10,738,400	9,900	150	10,050	7,200
District total	330,000	110,049,200	139,000	5,800	144,800	47,200
West Central District:						
Gove	69,100	24,012,600	20,400	600	21,000	25,000
Greeley	39,800	13,830,900	4,300	50	4,350	19,000
Lane	67,000	23,282,600	6,800	50	6,850	31,400
Logan	39,400	13,691,700	15,900	250	16,150	1,700
Ness	55,600	19,320,900	20,300	300	20,600	700
Scott	107,700	37,425,900	5,800	50	5,850	59,400
Trego	49,300	17,131,700	17,300	700	18,000	6,000
Wallace	18,500	6,429,300	8,800	200	9,000	600
Wichita	81,600	28,355,900	7,400	200	7,600	64,500
District total	528,000	183,481,500	107,000	2,400	109,400	208,300
Southwest District:						
Clark	64,700	23,260,700	9,900	50	9,950	7,600
Finney	134,600	48,391,300	7,000	50	7,050	102,200
Ford	131,700	47,348,700	7,300	750	8,050	71,700
Grant	79,300	28,510,300	5,600	50	5,650	55,200
Gray	96,000	34,514,000	7,300	50	7,350	47,700
Hamilton	30,000	10,785,600	4,700	50	4,750	18,000
Haskell	131,300	47,205,400	7,500	100	7,600	91,500
Hodgeman	65,100	23,404,900	7,100	550	7,650	12,000
Kearny	60,700	21,822,600	6,900	50	6,950	34,700
Meade	39,800	14,308,700	11,300	450	11,750	4,200
Morton	34,800	12,511,100	6,400	50	6,450	1,000
Seward	72,600	26,100,800	4,000	50	4,050	49,600
Stanton	41,400	14,884,600	3,900	50	3,950	22,000
Stevens	42,000	15,099,900	7,100	100	7,200	18,000
District total	1,024,000	368,148,600	96,000	2,400	98,400	535,400
North Central District:						
Clay	64,000	21,214,700	22,600	1,000	23,600	1,100
Cloud	29,900	9,911,300	18,900	450	19,350	800
Jewell	54,400	18,032,100	28,200	650	28,850	1,700
Mitchell	44,900	14,883,500	14,000	350	14,350	8,600
Osborne	53,600	17,767,700	20,500	450	20,950	4,200
Ottawa	56,400	18,695,000	14,700	750	15,450	3,500
Phillips	61,100	20,253,300	35,300	300	35,600	400
Republic	65,100	21,579,200	18,700	900	19,600	12,100
Rooks	60,500	20,0[illegible] 5,000	24,900	1,100	26,000	1,800
Smith	76,000	25,192,400	30,400	900	31,300	1,700
Washington	81,100	26,883,100	25,800	2,850	28,650	1,200
District total	647,000	214,467,300	254,000	9,700	263,700	37,100
Central District:						
Barton	98,700	34,100,700	19,000	550	19,550	47,600
Dickinson	60,000	20,729,600	20,900	1,900	22,800	8,400
Ellis	58,100	20,073,700	20,000	1,650	21,650	24,100
Ellsworth	37,700	13,025,600	24,500	300	24,800	200
Lincoln	55,500	19,175,400	23,100	700	23,800	600
McPherson	50,600	17,482,000	14,300	3,000	17,300	5,400
Marion	94,900	32,787,800	20,400	5,600	26,000	1,200
Rice	58,100	20,073,700	10,700	1,250	11,950	9,900
Rush	35,000	12,092,300	14,200	100	14,300	400
Russell	47,500	16,411,400	23,800	900	24,700	300
Saline	39,900	13,785,700	14,100	1,850	15,950	6,400
District total	636,000	219,737,900	205,000	17,800	222,800	104,500

CATTLE, JANUARY 1, 1982—*Concluded*

County	All Cattle and Calves		Cows that have calved			Cattle on feed, number
	Number	Value, dollars	Beef, number	Milk, number	Total cows, number	
South Central District:						
Barber	77,900	27,460,800	24,000	800	24,800	1,400
Comanche	50,400	17,766,700	19,100	350	19,450	1,300
Edwards	41,200	14,523,000	6,200	400	6,600	14,700
Harper	74,000	26,085,700	14,500	700	15,200	1,700
Harvey	42,200	14,875,500	5,800	2,500	8,300	1,900
Kingman	48,100	16,955,500	21,400	2,300	23,700	500
Kiowa	34,800	12,267,800	13,300	50	13,350	300
Pawnee	43,100	15,193,000	10,600	250	10,850	13,600
Pratt	50,800	17,907,900	10,900	550	11,450	17,300
Reno	73,900	26,050,700	23,700	4,300	28,000	13,100
Sedgwick	48,100	16,955,500	14,600	7,600	22,200	1,900
Stafford	56,200	19,810,700	16,200	250	16,450	7,900
Sumner	45,300	15,969,100	16,700	1,350	18,050	500
District total	686,000	241,821,900	197,000	21,400	218,400	76,100
Northeast District:						
Atchison	42,500	15,066,700	16,000	1,950	17,950	700
Brown	43,200	15,315,100	19,000	2,650	21,650	1,800
Doniphan	27,900	9,891,300	11,600	950	12,550	1,000
Jackson	61,000	21,625,200	27,400	2,050	29,450	400
Jefferson	49,500	17,548,300	20,100	2,750	22,850	400
Leavenworth	53,400	18,931,300	14,100	4,300	18,400	300
Marshall	59,700	21,164,500	20,700	3,550	24,250	3,600
Nemaha	74,000	26,233,800	19,800	6,700	26,500	1,600
Pottawatomie	75,800	26,871,700	23,700	1,850	25,550	1,000
Riley	40,300	14,286,600	14,500	1,500	16,000	800
Wyandotte	4,700	1,666,400	2,100	250	2,356	100
District total	532,000	188,600,900	189,000	28,500	217,500	11,700
East Central District:						
Anderson	56,800	19,225,700	23,500	1,900	25,400	500
Chase	51,600	17,466,200	22,300	150	22,450	1,100
Coffey	47,900	16,213,400	16,100	300	16,400	700
Douglas	39,700	13,438,400	14,100	3,100	17,200	900
Franklin	50,700	17,161,800	18,100	3,600	21,700	1,400
Geary	28,500	9,646,900	11,900	1,000	12,900	800
Johnson	29,700	10,053,500	12,000	1,100	13,100	1,100
Linn	51,200	17,331,000	26,700	1,250	27,950	300
Lyon	81,000	27,417,600	22,300	900	23,200	10,000
Miami	65,500	22,171,000	26,000	2,300	28,300	600
Morris	77,700	26,300,900	26,500	1,600	28,100	1,000
Osage	46,500	15,739,700	20,300	650	20,950	700
Shawnee	24,800	8,394,100	12,200	450	12,650	1,000
Wabaunsee	55,400	18,752,100	27,000	1,000	28,000	1,200
District total	707,000	239,312,300	279,000	19,300	298,300	20,800
Southeast District:						
Allen	42,400	14,182,500	17,700	2,000	19,700	300
Bourbon	77,200	25,822,400	29,500	1,800	31,300	600
Butler	106,500	35,622,600	29,400	2,150	31,550	22,100
Chautauqua	57,000	19,065,600	33,800	450	34,250	1,500
Cherokee	35,300	11,807,100	26,300	200	20,500	700
Cowley	97,100	32,478,000	29,900	850	30,750	15,100
Crawford	62,500	20,905,200	28,700	1,050	29,750	1,300
Elk	46,100	15,419,300	23,900	200	24,100	700
Greenwood	103,000	34,451,800	41,500	1,900	43,400	1,000
Labette	71,500	23,915,600	22,700	2,100	24,800	15,700
Montgomery	40,900	13,680,800	20,600	1,100	21,700	300
Neosho	70,700	23,648,200	25,100	1,900	27,000	600
Wilson	48,700	16,289,600	20,700	500	21,200	200
Woodson	51,100	17,091,700	16,200	500	16,700	8,800
District total	910,000	304,380,400	360,000	16,700	376,700	68,900
State	6,000,000	2,070,000,000	1,826,000	124,000	1,950,000	1,110,000

HOGS AND SHEEP ON FARMS

County	Hogs and pigs December 1, 1980		Pig crop 1980	All sheep and lambs January 1, 1981	
	Number	Value, dollars	Number	Number	Value, dollars
Northwest District:					
Cheyenne	7,000	452,600	14,000	100	6,300
Decatur	14,400	931,100	22,800	700	44,000
Graham	7,900	510,800	12,900	300	18,900
Norton	12,600	814,700	25,200	2,800	176,100
Rawlins	8,400	543,100	18,700	2,900	182,300
Sheridan	16,900	1,092,700	22,200	1,500	94,300
Sherman	6,900	446,100	10,000	3,000	188,600
Thomas	9,700	627,200	15,200	2,300	144,600
District total	83,800	5,418,300	141,000	13,600	855,100
West Central District:					
Gove	10,300	676,700	17,500	2,100	130,300
Greeley	3,200	210,200	5,800	100	6,200
Lane	4,400	289,100	7,600	900	55,800
Logan	3,300	216,800	5,300	12,100	750,800
Ness	3,200	210,200	7,000	1,500	93,100
Scott	26,600	1,747,600	28,000	3,900	242,000
Trego	6,000	394,200	10,500	1,500	93,100
Wallace	2,500	164,200	7,000	1,600	99,300
Wichita	6,200	407,300	9,300	10,100	626,700
District total	65,700	4,316,300	98,000	33,800	2,097,300
Southwest District:					
Clark	1,200	78,600	1,800	200	11,800
Finney	6,400	419,400	8,800	600	35,500
Ford	14,000	917,400	29,300	800	47,300
Grant	9,000	589,700	15,200	500	29,600
Gray	8,700	570,100	11,700	3,400	201,000
Hamilton	2,800	183,500	4,760	200	11,800
Haskell	10,700	701,100	12,900	300	17,700
Hodgeman	3,500	229,300	4,700	100	5,900
Kearny	2,800	183,500	5,800	1,000	59,100
Meade	*	*	*	600	35,500
Morton	500	32,800	1,200	100	5,900
Seward	*	*	*	400	23,700
Stanton	900	59,000	1,800	800	47,300
Stevens	5,200	340,700	7,600	100	5,900
District total	162,700	10,661,300	232,000	9,100	538,000
North Central District:					
Clay	43,500	2,743,900	77,900	900	53,900
Cloud	18,200	1,148,000	32,200	800	47,900
Jewell	50,500	3,185,400	88,400	7,900	472,800
Mitchell	28,800	1,816,700	51,500	3,200	191,500
Osborne	20,600	1,299,400	34,000	3,000	179,500
Ottawa	11,900	750,600	19,300	700	41,900
Phillips	36,800	2,321,300	66,700	300	18,000
Republic	38,400	2,422,200	58,600	8,300	496,800
Rooks	8,900	561,400	15,200	900	53,900
Smith	33,900	2,138,300	59,700	2,400	143,600
Washington	82,400	5,197,600	116,500	1,800	107,700
District total	373,900	23,584,800	620,000	30,200	1,807,500
Central District:					
Barton	16,100	1,049,400	29,900	1,900	119,000
Dickinson	26,400	1,720,700	48,000	5,400	213,000
Ellis	7,500	488,800	12,300	800	50,100
Ellsworth	8,100	527,900	13,500	800	50,100
Lincoln	13,000	847,300	19,300	4,700	294,500
McPherson	32,200	2,098,700	42,100	6,600	413,500
Marion	33,300	2,170,400	57,400	2,000	125,300
Rice	22,500	1,466,500	29,900	3,400	213,000
Rush	1,300	84,700	1,700	1,000	62,700
Russell	6,600	430,200	9,900	1,000	62,600
Saline	22,600	1,473,000	34,000	2,200	137,800
District total	189,600	12,357,600	298,000	27,800	1,741,600

HOGS AND SHEEP ON FARMS—*Concluded*

County	Hogs and pigs December 1, 1980		Pig crop 1980	All sheep and lambs January 1, 1981	
	Number	Value, dollars	Number	Number	Value, dollars
South Central District:					
Barber	4,000	263,500	9,400	2,500	155,800
Comanche	4,900	322,800	7,600	2,500	155,800
Edwards	2,700	177,900	3,500	1,900	118,400
Harper	6,100	401,800	11,100	2,400	149,500
Harvey	25,200	1,660,100	40,900	7,000	436,200
Kingman	11,300	744,400	17,000	2,600	162,000
Kiowa	12,100	797,100	21,600	100	6,200
Pawnee	11,700	770,800	20,500	1,700	105,900
Pratt	21,400	1,409,800	32,700	800	49,800
Reno	23,500	1,548,100	46,200	11,500	716,600
Sedgwick	27,800	1,831,400	43,300	18,700	1,165,200
Stafford	6,300	415,000	14,000	2,000	124,600
Sumner	20,300	1,337,300	36,200	5,400	336,500
District total	177,300	11,680,000	304,000	59,100	3,682,500
Northeast District:					
Atchison	25,100	1,622,900	52,700	300	18,200
Brown	46,300	2,993,600	68,500	2,200	133,700
Doniphan	24,300	1,571,200	38,700	1,300	79,000
Jackson	19,300	1,247,900	35,100	2,700	164,100
Jefferson	23,500	1,519,500	36,900	300	18,200
Leavenworth	12,300	795,300	17,600	2,100	127,600
Marshall	63,000	4,073,400	80,800	1,400	85,100
Nemaha	55,900	3,614,300	107,200	900	54,700
Pottawatomie	34,800	2,250,100	63,200	700	42,600
Riley	25,000	1,616,400	38,100	1,200	72,900
Wyandotte	800	51,700	1,200	100	6,100
District total	330,300	21,356,300	540,000	13,200	802,200
East Central District:					
Anderson	16,800	1,082,900	28,100	1,300	77,500
Chase	9,100	586,600	12,900	400	23,900
Coffey	10,200	657,500	22,800	300	17,900
Douglas	23,600	1,521,200	32,100	1,100	65,600
Franklin	20,100	1,295,600	31,000	2,200	131,200
Geary	24,000	1,547,000	36,200	400	23,900
Johnson	12,000	773,500	21,000	700	41,700
Linn	21,700	1,398,700	42,100	200	11,900
Lyon	23,000	1,482,500	42,100	400	23,900
Miami	16,200	1,044,200	19,900	1,200	71,600
Morris	26,600	1,714,600	40,900	400	23,900
Osage	22,000	1,418,100	39,200	300	17,900
Shawnee	9,300	599,400	15,800	600	35,800
Wabaunsee	22,400	1,443,800	33,900	7,400	441,400
District total	257,000	16,565,600	418,000	16,900	1,008,100
Southeast District:					
Allen	14,900	953,000	24,600	1,100	67,300
Bourbon	15,000	959,400	25,100	800	49,000
Butler	39,000	2,494,300	47,900	1,600	97,900
Chautauqua	8,500	543,600	17,000	1,600	97,900
Cherokee	4,600	294,200	9,400	100	6,100
Cowley	27,800	1,778,000	50,300	3,500	214,200
Crawford	16,800	1,074,500	22,200	1,700	104,100
Elk	13,000	831,400	24,000	300	18,400
Greenwood	12,700	812,300	21,600	700	42,900
Labette	20,800	1,330,300	29,800	2,100	128,500
Montgomery	28,600	1,829,200	54,400	600	36,700
Neosho	24,800	1,586,200	41,500	400	24,500
Wilson	24,700	1,579,800	38,600	1,100	67,300
Woodson	8,500	543,600	14,600	700	42,900
District total	259,700	16,609,800	421,000	16,300	997,700
State	1,900,000	122,550,000	3,072,000	220,900	13,530,000

* Counties not shown separately but included in district and state totals.

HOGS AND SHEEP ON FARMS

County	Hogs and pigs December 1, 1981		Pig crop 1981	All sheep and lambs January 1, 1982	
	Number	Value, dollars	Number	Number	Value, dollars
Northwest District:					
Cheyenne	5,200	332,400	10,300	300	15,500
Decatur	18,600	1,188,900	27,000	400	20,600
Graham	9,500	607,300	15,400	600	31,000
Norton	14,700	939,700	26,400	3,700	190,900
Rawlins	9,000	575,300	16,700	3,500	180,500
Sheridan	14,100	901,300	25,100	800	41,300
Sherman	5,200	332,400	10,300	2,100	108,300
Thomas	7,200	460,200	13,500	2,800	144,400
District total	83,500	5,337,500	144,700	14,200	732,500
West Central District:					
[illegible]	12,100	766,700	20,600	2,800	147,400
Greeley	3,900	247,100	6,400	300	15,800
Lane	4,000	253,500	7,100	1,100	57,900
Logan	2,500	158,400	5,100	3,300	173,700
Ness	2,900	183,800	5,800	1,900	100,000
Scott	19,900	1,260,900	32,100	1,300	68,500
Trego	5,800	367,500	11,600	2,500	131,600
Wallace	2,700	171,100	4,500	500	26,300
Wichita	6,600	418,200	10,900	4,100	215,800
District total	60,400	3,827,200	104,100	17,800	937,000
Southwest District:					
Clark	1,100	68,900	1,900	200	9,900
Finney	8,200	514,100	1[illegible],600	500	24,800
Ford	14,200	890,300	22,500	300	14,900
Grant	9,900	620,700	15,400	300	14,900
Gray	10,900	683,400	14,800	2,700	133,900
Hamilton	2,100	131,600	4,500	100	5,000
Haskell	9,000	564,200	14,800	600	29,700
Hodgeman	3,700	231,900	5,100	200	9,900
Kearny	3,400	213,100	5,100	1,100	54,600
Meade	*	*	*	800	39,600
Morton	500	31,300	1,300	100	5,000
Seward	*	*	*	100	5,000
Stanton	1,100	68,900	1,300	200	9,900
Stevens	4,200	263,300	8,400	100	5,000
District total	177,700	11,141,000	263,600	7,300	362,100
North Central District:					
Clay	35,900	2,262,600	65,600	1,700	91,800
Cloud	15,800	995,800	28,300	1,200	64,800
Jewell	40,600	2,558,800	73,900	5,300	286,300
Mitchell	25,300	1,594,500	48,200	3,000	162,100
Osborne	17,200	1,084,000	35,400	2,800	151,200
Ottawa	11,300	712,200	17,400	1,600	86,400
Phillips	32,300	2,035,700	57,900	900	48,600
Republic	40,700	2,565,100	57,200	8,300	448,400
Rooks	6,900	434,900	12,200	300	16,200
Smith	31,200	1,966,400	52,700	3,000	162,000
Washington	64,400	4,058,800	111,200	3,900	210,700
District total	321,600	20,268,800	560,000	32,000	1,728,500
Central District:					
Barton	15,000	947,900	28,900	1,900	103,700
Dickinson	28,500	1,801,000	49,500	3,300	180,100
Ellis	5,600	353,900	10,900	900	49,100
Ellsworth	6,100	385,500	10,300	600	32,800
Lincoln	12,200	771,000	20,600	5,000	273,000
McPherson	32,300	2,041,200	49,500	5,400	294,800
Marion	34,100	2,154,900	54,600	2,700	147,400
Rice	18,700	1,181,700	30,900	1,800	98,300
Rush	1,200	75,800	1,300	1,100	60,000
Russell	4,900	309,700	9,000	1,300	71,000
Saline	25,300	1,598,800	38,600	1,900	103,700
District total	183,900	11,621,400	304,100	25,900	1,413,900

HOGS AND SHEEP ON FARMS—*Concluded*

County	Hogs and pigs December 1, 1981		Pig crop 1981	All sheep and lambs January 1, 1982	
	Number	Value, dollars	Number	Number	Value, dollars
South Central District:					
Barber	3,000	189,900	7,100	2,900	154,300
Comanche	3,800	240,600	8,300	600	31,900
Edwards	3,300	208,900	4,500	1,900	101,100
Harper	7,200	455,800	11,600	1,800	95,800
Harvey	28,200	1,785,200	39,900	8,800	468,400
Kingman	12,100	766,000	17,300	1,800	95,800
Kiowa	9,000	569,700	19,300	400	21,300
Pawnee	12,000	759,600	22,500	1,100	58,500
Pratt	20,800	1,316,700	34,100	800	42,600
Reno	19,300	1,221,800	37,300	13,600	723,800
Sedgwick	23,100	1,462,300	38,600	19,100	1,016,600
Stafford	7,100	449,500	12,200	300	16,000
Sumner	19,100	1,209,100	30,800	6,500	346,000
District total	168,000	10,635,100	283,500	59,600	3,172,100
Northeast District:					
Atchison	23,000	1,444,100	45,000	800	42,300
Brown	38,500	2,417,200	65,600	1,500	79,300
Doniphan	23,900	1,500,600	33,400	1,900	100,500
Jackson	22,900	1,437,800	34,100	3,400	179,800
Jefferson	25,100	1,575,900	37,300	700	37,000
Leavenworth	13,800	866,400	18,600	400	21,100
Marshall	49,100	3,082,700	82,900	1,400	74,000
Nemaha	43,500	2,731,200	84,200	1,900	100,500
Pottawatomie	28,200	1,770,500	50,800	1,200	63,500
Riley	29,900	1,877,300	40,500	1,200	63,500
Wyandotte	600	37,700	1,300	100	5,300
District total	298,500	18,741,400	493,700	14,500	766,800
East Central District:					
Anderson	17,000	1,071,100	27,600	800	45,900
Chase	9,800	617,500	13,500	300	17,200
Coffey	8,900	560,700	14,800	500	28,700
Douglas	19,600	1,234,900	32,800	800	45,900
Franklin	15,000	945,100	27,000	2,300	132,000
Geary	24,800	1,562,500	37,300	500	28,700
Johnson	9,700	611,100	19,900	400	23,000
Linn	18,300	1,153,000	34,700	400	23,000
Lyon	24,300	1,531,000	37,900	300	17,200
Miami	12,100	762,400	19,300	1,200	68,800
Morris	28,100	1,770,400	46,900	600	34,400
Osage	19,000	1,197,100	37,300	600	34,400
Shawnee	7,900	497,700	12,900	600	34,400
Wabaunsee	17,900	1,127,800	30,900	3,300	189,300
Distr t total	232,400	14,642,300	392,800	12,600	722,900
Southeast District:					
Allen	15,900	996,700	25,700	900	48,300
Bourbon	11,800	739,700	21,200	600	32,200
Butler	44,500	2,789,500	55,900	2,000	107,400
Chautauqua	11,000	689,600	15,400	1,400	75,200
Cherokee	4,000	250,700	7,100	200	10,700
Cowley	26,700	1,673,700	42,400	3,700	198,600
Crawford	13,300	833,700	22,500	1,200	64,400
Elk	15,300	959,100	20,600	200	10,700
Greenwood	9,500	595,500	18,000	900	48,300
Labette	15,500	971,600	27,700	1,100	59,000
Montgomery	21,400	1,341,500	43,700	400	21,500
Neosho	30,400	1,905,700	42,400	900	48,300
Wilson	18,400	1,153,400	36,700	1,400	75,200
Woodson	6,300	394,900	12,200	1,200	64,400
District total	244,000	15,295,300	391,500	16,100	864,200
State	1,770,000	111,510,000	2,938,000	200,000	10,700,000

* Counties not shown separately but included in district and state totals.

VALUE OF PRODUCTION, 1980-81[1]

County	Cattle & Calves		Hogs & Pigs		Sheep & Lambs	
	1980	1981	1980	1981	1980	1981
	— Dollars —					
Northwest District:						
Cheyenne	6,682,200	7,570,100	1,297,500	1,093,500	3,700	9,700
Decatur	11,211,100	10,849,500	2,113,100	2,866,600	25,800	12,800
Graham	8,130,000	6,930,400	1,195,600	1,635,000	11,100	19,300
Norton	8,506,900	9,517,000	2,335,500	2,802,900	103,400	119,000
Rawlins	8,503,500	7,616,700	1,733,100	1,773,000	107,000	112,500
Sheridan	17,596,100	13,700,300	2,057,500	2,664,800	55,400	25,800
Sherman	11,207,300	8,781,200	926,800	1,093,500	110,700	67,500
Thomas	11,066,800	8,166,200	1,408,700	1,433,300	84,900	90,000
District Total	82,903,900	73,131,400	13,067,800	15,362,600	502,000	456,600
West Central District:						
Gove	21,801,200	16,165,400	1,648,200	2,167,900	76,500	91,900
Greeley	23,182,200	15,708,800	546,200	673,500	3,600	9,900
Lane	56,881,500	29,583,900	715,800	747,200	32,800	36,100
Logan	15,456,700	10,579,100	499,200	536,700	440,800	108,300
Ness	16,737,000	12,083,500	659,300	610,400	54,600	62,300
Scott	69,932,200	47,671,300	2,637,100	3,378,100	142,100	42,700
Trego	12,566,100	10,081,800	988,900	1,220,800	54,700	82,000
Wallace	6,117,200	4,647,100	659,300	473,600	58,300	16,400
Wichita	36,848,100	31,002,800	875,900	1,147,100	367,900	134,500
District Total	259,522,200	177,523,700	9,229,900	10,955,300	1,231,300	584,100
Southwest District:						
Clark	17,536,600	17,464,400	169,100	197,900	6,900	6,200
Finney	79,267,100	80,582,200	826,600	1,208,100	20,800	15,400
Ford	78,802,900	66,121,900	2,752,200	2,343,200	27,800	9,300
Grant	34,096,400	32,492,000	1,427,800	1,603,800	17,400	9,300
Gray	36,261,300	34,338,100	1,099,000	1,541,300	118,000	83,500
Hamilton	12,753,600	12,083,000	441,500	468,600	6,900	3,100
Haskell	59,290,400	50,781,300	1,211,700	1,541,300	10,400	18,500
Hodgeman	25,394,300	19,682,000	441,500	531,100	3,400	6,200
Kearny	22,361,600	18,505,100	544,800	531,100	34,700	34,000
Meade	13,330,800	10,528,800	5,222,600	6,165,200	20,800	24,700
Morton	9,357,800	9,350,100	112,700	135,400	3,500	3,100
Seward	29,810,400	27,926,600	6,659,800	10,174,700	13,900	3,100
Stanton	15,470,300	13,411,400	169,100	135,400	27,800	6,200
Stevens	10,466,600	9,735,200	713,900	874,800	3,500	3,100
District Total	444,200,100	403,002,100	21,792,300	27,451,900	315,800	225,700
North Central District:						
Clay	11,950,600	12,843,600	7,044,100	6,867,700	31,600	57,200
Cloud	6,750,600	6,242,300	2,911,700	2,962,700	28,100	40,400
Jewell	12,194,500	11,494,000	7,993,600	7,736,600	277,600	178,500
Mitchell	12,283,300	10,585,400	4,656,900	5,046,100	112,400	101,000
Osborne	13,028,400	11,388,400	3,074,500	3,706,000	105,400	94,300
Ottawa	12,903,700	11,932,000	1,745,200	1,821,600	24,600	53,900
Phillips	13,886,700	11,671,400	6,031,400	6,061,600	10,600	30,300
Republic	19,451,600	17,095,300	5,298,900	5,988,300	291,700	279,500
Rooks	12,105,700	12,276,400	1,374,500	1,277,200	31,600	10,100
Smith	14,693,900	15,545,800	5,398,400	5,517,200	84,300	101,000
Washington	20,549,500	17,102,800	10,534,500	11,641,600	63,200	131,300
District Total	149,798,500	138,177,400	56,063,700	58,626,600	1,061,100	1,077,500
Central District:						
Barton	27,802,100	29,869,000	2,793,600	3,033,200	69,900	64,600
Dickinson	23,337,700	20,469,700	4,484,700	5,195,300	125,000	112,300
Ellis	17,919,200	13,633,700	1,149,200	1,144,000	29,400	30,600
Ellsworth	8,302,600	7,577,800	1,261,300	1,081,100	29,400	20,400
Lincoln	11,944,900	11,963,900	1,803,200	2,162,100	172,900	170,200
McPherson	17,149,500	13,428,500	3,933,500	5,195,300	242,800	183,800
Marion	22,542,100	22,280,400	5,362,900	5,730,600	73,600	91,900
Rice	20,591,200	16,772,800	2,793,600	3,243,200	125,000	61,300
Rush	8,630,500	8,997,000	158,800	136,500	36,800	37,400
Russell	4,394,000	9,736,300	925,000	944,600	36,700	44,300
Saline	14,622,400	12,088,300	3,176,700	4,051,300	80,900	64,600
District Total	177,236,200	166,817,400	27,842,500	31,917,200	1,022,400	881,400

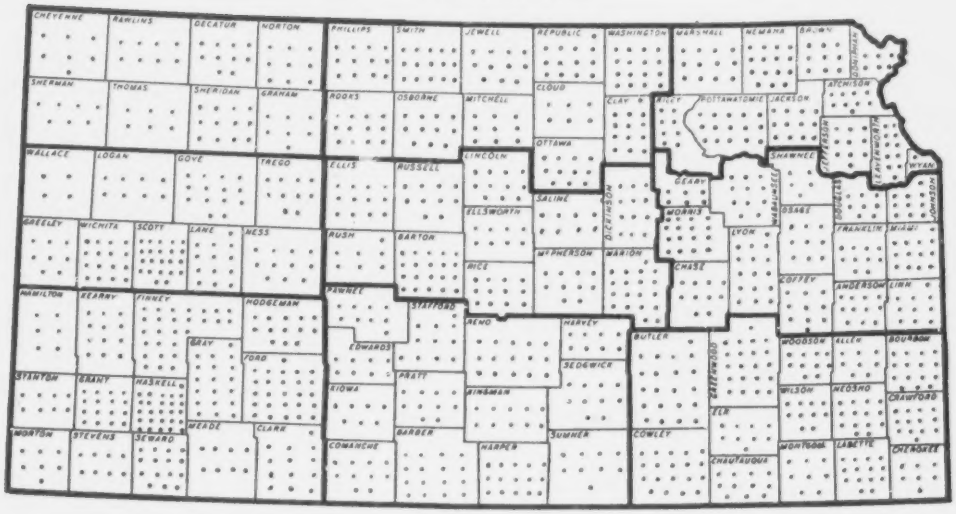
VALUE OF PRODUCTION, 1980-81[1]—*Concluded*

County	Cattle & Calves		Hogs & Pigs		Sheep & Lambs	
	1980	1981	1980	1981	1980	1981
	— Dollars —					
South Central District:						
Barber	18,980,500	19,844,200	887,700	746,500	91,500	96,200
Comanche	9,896,400	11,034,100	717,700	872,700	91,500	19,900
Edwards	12,224,400	12,104,900	330,500	473,100	69,300	63,000
Harper	16,626,900	17,051,800	1,048,200	1,219,600	87,800	59,700
Harvey	12,808,000	11,444,500	3,862,300	4,195,000	256,100	292,000
Kingman	12,479,800	10,533,000	1,605,400	1,818,900	95,100	59,700
Kiowa	10,217,000	9,399,700	2,039,700	2,029,200	3,600	13,300
Pawnee	14,2[illegible],400	12,664,400	1,935,900	2,365,600	62,200	36,500
Pratt	21,305,100	22,665,500	3,088,000	3,585,200	29,200	26,500
Reno	21,856,700	17,331,300	4,362,800	3,921,700	420,700	451,200
Sedgwick	15,519,200	11,600,800	4,088,900	4,058,400	684,100	633,700
Stafford	17,729,700	14,606,600	1,322,100	1,282,700	73,100	10,000
Sumner	12,366,300	10,374,400	3,418,500	3,238,300	197,500	215,700
District Total	196,290,400	180,655,200	28,707,700	29,806,900	2,161,900	1,977,400
Northeast District:						
Atchison	8,230,500	9,240,500	4,884,200	4,693,100	10,700	26,400
Brown	12,029,700	10,183,900	6,348,600	6,841,500	78,500	49,400
Doniphan	7,480,400	7,532,400	3,586,700	3,483,400	46,400	62,600
Jackson	12,724,700	12,813,600	3,253,000	3,556,400	96,300	112,100
Jefferson	10,953,500	10,507,000	3,419,900	3,890,100	10,700	23,100
Leavenworth	9,778,600	11,019,900	1,631,200	1,939,800	74,900	13,200
Marshall	16,424,300	15,347,100	7,488,500	8,645,800	50,000	46,100
Nemaha	20,146,800	19,278,000	9,935,300	8,781,400	32,100	62,600
Pottawatomie	19,731,600	18,435,000	5,857,400	5,298,000	25,000	39,600
Riley	8,248,200	8,965,700	3,531,100	4,223,800	42,800	39,600
Wyandotte	1,008,900	1,114,400	111,200	135,600	3,600	3,300
District Total	126,757,200	124,437,500	50,047,100	51,488,900	471,000	478,000
East Central District:						
Anderson	12,011,200	11,599,000	2,590,200	2,888,500	45,500	28,600
Chase	13,012,000	11,656,100	1,189,100	1,412,900	14,100	10,700
Coffey	11,932,000	10,203,300	2,101,700	1,548,900	10,500	17,900
Douglas	9,590,000	8,136,100	2,958,900	3,432,800	38,500	28,600
Franklin	11,388,900	9,976,900	2,857,500	2,825,800	77,000	82,300
Geary	4,963,000	5,803,600	3,336,900	3,903,700	14,000	17,900
Johnson	5,923,400	6,749,300	1,935,800	2,082,700	24,500	14,300
Linn	9,322,200	10,156,200	3,880,700	3,631,600	7,000	14,300
Lyon	27,522,700	26,677,300	3,880,700	3,966,500	14,000	10,700
Miami	12,333,900	12,996,900	1,834,400	2,019,900	42,100	42,900
Morris	17,683,300	16,930,900	3,770,100	4,908,400	14,000	21,500
Osage	8,959,300	10,413,800	3,613,400	3,903,700	10,500	21,500
Shawnee	6,042,300	5,294,800	1,456,400	1,350,100	21,000	21,400
Wabaunsee	16,089,200	12,879,000	3,124,900	3,233,900	259,100	118,000
District Total	166,773,400	159,473,200	38,530,700	41,109,400	591,800	450,600
Southeast District:						
Allen	9,402,900	8,046,000	2,255,300	2,676,000	39,500	30,100
Bourbon	19,793,500	18,066,100	2,301,100	2,207,500	28,800	20,100
Butler	29,998,500	30,947,800	4,391,400	5,820,600	57,500	66,900
Chautauqua	10,431,500	11,069,900	1,558,500	1,603,600	57,500	46,900
Cherokee	6,799,200	6,767,800	861,800	739,300	3,600	6,700
Cowley	25,032,100	20,653,300	4,611,400	4,414,900	125,700	123,800
Crawford	10,818,700	12,461,500	2,035,200	2,342,800	61,100	40,100
Elk	10,092,400	8,366,500	2,200,300	2,145,000	10,800	6,700
Greenwood	22,893,600	20,761,300	1,980,200	1,874,300	25,200	30,100
Labette	19,595,500	16,665,700	2,732,000	2,884,300	75,400	36,800
Montgomery	8,578,100	8,201,800	4,987,300	4,550,300	21,500	13,400
Neosho	12,388,400	13,922,700	3,804,600	4,414,900	14,400	30 100
Wilson	10,435,600	10,752,400	3,538,700	3,821,400	39,500	46,900
Woodson	12,113,100	12,604,300	1,338,500	1,270,300	25,200	40,100
District Total	208,373,100	199,287,100	38,596,300	40,765,200	585,700	538,700
State	1,811,855,000	1,622,505,000	283,878,000	307,484,000	7,943,000	6,670,000

1. Value represents weighted monthly prices received by farmers applied to production of livestock, not an inventory value.

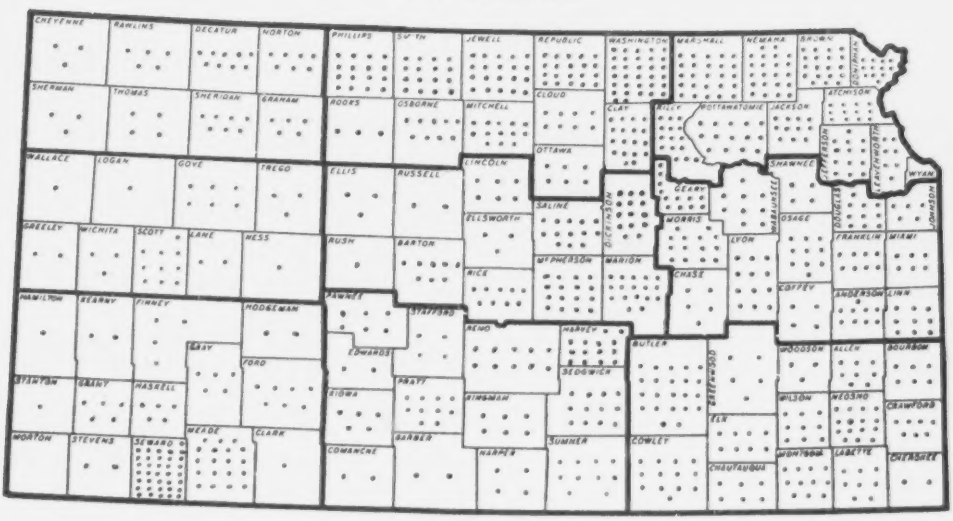
ALL CATTLE AND CALVES, JANUARY 1, 1982

1 Dot=5,000 Head



ALL HOGS AND PIGS, DECEMBER 1, 1981

1 Dot=2,000 Head



DAIRY AND POULTRY PRODUCTION

BY CHARLES L. RUCKMAN

MILK RECEIPTS HIGHER FOR 1981

Kansas dairymen enjoyed record high cash receipts of $192 million from milk and cream marketings during 1981. This 12 percent increase in receipts from 1980 resulted from higher milk prices and a five percent increase in milk production. Milk production during 1981 totaled nearly 1.4 billion pounds and was at the highest level of production since 1977. Average production per cow for the year was a record high 11,266 pounds. The 5,700 dairy farms in 1981 averaged 124,000 head of milk cows. The farm value of milk produced was $196 million. Of the milk produced in Kansas 98 percent was marketed through plants and dealers with 84 percent of the milk sold as fluid grade. Sedgwick county continues to be the state's leading milk producing county with the value of milk produced at $12.7 million followed by Nemaha county with $11.6 million. Milk sold to plants and dealers averaged $14.04 per hundredweight in 1981, up from $13.12 in 1980. The milk-feed price ratio averaged 1.44, down from 1.50 during 1980.

BUTTER AND AMERICAN CHEESE PRODUCTION HIGHER

Butter production during 1981 was at the highest level since 1968 as the 18.7 million pounds produced was an increase of 14 percent from 1980. American cheese production, at 25.8 million pounds, increased three percent from the previous year and was at the highest level since 1977. However, total natural cheese production was down slightly during the year at 30.4 million pounds. Although lowfat cottage cheese production at 2.5 million pounds continues to climb, total cottage cheese production at 21.5 million pounds was at the lowest level since 1974. Frozen products, including ice cream, ice milk and milk sherbet, were up only slightly during the year at 14.1 million pounds. Both ice cream and milk sherbet production were at the highest level since 1974 while ice milk production declined 10 percent during the year.

DOWNWARD POULTRY INVENTORY TREND REVERSES

The number of all chickens on farms December 1, 1981, at 2.3 million birds, was up six percent from the previous year. Only seven times since 1944 has the poultry inventory level shown an increase from the previous year. During this long time downward trend, the inventory has never increased two years in a row. Hens and pullets of laying age averaged nearly 1.7 million during 1981, a decline of seven percent but the average HPLA on farms during December 1981 was eight percent higher than during December 1980. Egg production during 1981 was down three percent and the lowest on record. Although egg production was down, total cash receipts from eggs of $17.7 million were up nearly 16 percent. Value of chickens produced was off 34 percent. Wabaunsee and McPherson were the leading counties in value of eggs produced at $2.3 million for 1981.

Commercial hatcheries in Kansas produced 2.6 million egg-type chicks during 1981, a nine percent reduction from the previous year and the smallest annual total since records began in 1958. The 221,000 turkeys raised during 1981 was up 67 percent. Income from turkeys grossed nearly $1.5 million, up 20 percent from the previous year.

MILK COWS, MILK PRODUCTION AND VALUE, 1980-81

County	1980			1981		
	Milk Cows,[1] Number	Pounds Produced (000)	Farm Value, Dollars	Milk Cows,[1] Number	Pounds Produced (000)	Farm Value, Dollars
Northwest District:						
Cheyenne	450	4,400	577,300	375	3,800	533,500
Decatur	825	8,100	1,062,700	875	8,800	1,235,500
Graham	525	5,200	682,200	450	5,100	716,100
Norton	900	8,800	1,154,600	850	8,500	1,193,400
Rawlins	1,450	14,200	1,863,100	1,675	16,800	2,358,700
Sheridan	1,175	11,500	1,508,800	1,150	11,500	1,614,600
Sherman	325	3,200	419,800	300	4,400	617,800
Thomas	200	2,000	262,400	175	1,800	252,700
District Total	5,850	57,400	7,530,900	5,850	60,700	8,522,300
West Central District:						
Gove	750	8,200	1,075,800	675	6,800	954,700
Greeley	50	500	65,600	50	500	70,200
Lane	50	500	65,600	50	500	70,200
Logan	250	2,600	341,100	250	2,500	351,000
Ness	425	4,400	577,300	375	3,800	533,500
Scott	50	500	65,600	50	500	70,200
Trego	850	8,800	1,154,600	800	8,100	1,137,300
Wallace	250	2,600	341,100	225	2,300	322,900
Wichita	175	1,800	236,200	225	2,300	322,900
District Total	2,850	29,900	3,922,900	2,700	27,300	3,832,900
Southwest District:						
Clark	50	600	78,700	50	600	84,300
Finney	100	1,100	144,300	75	800	112,300
Ford	850	9,400	1,233,300	825	9,100	1,277,700
Grant	50	600	78,700	50	600	84,200
Gray	50	600	78,700	50	600	84,200
Hamilton	50	600	78,700	50	600	84,200
Haskell	100	1,100	144,300	100	1,100	154,500
Hodgeman	600	6,700	879,100	575	6,600	926,700
Kearny	50	600	78,700	50	600	84,200
Meade	425	4,700	616,700	450	5,000	702,000
Morton	75	800	105,000	75	800	112,300
Seward	50	600	78,700	50	600	84,200
Stanton	50	600	78,700	50	600	84,200
Stevens	150	1,700	223,000	150	1,700	238,700
District Total	2,650	29,700	3,896,600	2,600	29,300	4,113,700
North Central District:						
Clay	1,050	11,500	1,508,800	1,050	10,700	1,502,300
Cloud	500	5,300	695,400	475	4,800	673,900
Jewell	900	9,000	1,180,800	750	7,700	1,081,100
Mitchell	300	3,300	433,000	325	3,600	505,400
Osborne	550	5,600	734,700	500	5,100	716,000
Ottawa	675	7,000	918,400	700	7,100	996,900
Phillips	450	4,500	590,400	350	3,600	505,400
Republic	850	8,600	1,128,300	850	8,700	1,221,500
Rooks	1,100	10,700	1,403,800	1,100	11,000	1,544,400
Smith	1,025	9,900	1,298,900	975	9,900	1,390,000
Washington	2,600	26,300	3,450,500	2,725	27,800	3,903,100
District Total	10,000	101,700	13,343,000	9,800	100,000	14,040,000
Central District:						
Barton	725	7,300	957,800	625	7,200	1,010,900
Dickinson	1,800	19,800	2,597,700	1,850	21,200	2,976,500
Ellis	1,275	16,900	2,217,300	1,500	17,200	2,414,900
Ellsworth	325	3,500	459,200	300	3,900	547,600
Lincoln	850	9,400	1,233,300	775	8,900	1,249,600
McPherson	2,900	31,900	4,185,300	2,950	33,800	4,745,500
Marion	4,750	54,900	7,202,900	5,200	59,600	8,367,800
Rice	1,325	14,600	1,915,500	1,375	15,300	2,148,100
Rush	200	2,200	288,600	150	1,700	238,700
Russell	875	9,600	1,259,500	900	10,300	1,446,100
Saline	1,675	18,800	2,466,600	1,725	19,800	2,779,900
District Total	16,700	188,900	24,783,700	17,350	198,900	27,925,600

MILK COWS, MILK PRODUCTION AND VALUE, 1980-81—*Concluded*

County	1980			1981		
	Milk Cows,[1] Number	Pounds Produced (000)	Farm Value, Dollars	Milk Cows,[1] Number	Pounds Produced (000)	Farm Value, Dollars
South Central District:						
Barber	825	8,400	1,102,100	775	9,100	1,277,700
Comanche	300	3,100	406,700	325	3,800	533,500
Edwards	400	4,100	537,900	400	4,700	659,900
Harper	700	7,100	931,500	700	8,200	1,151,300
Harvey	2,275	24,300	3,188,200	2,375	27,800	3,903,100
Kingman	1,975	20,100	2,637,100	2,075	24,200	3,397,700
Kiowa	50	500	65,600	50	600	84,200
Pawnee	350	3,600	472,300	325	3,800	533,500
Pratt	500	5,100	669,100	525	6,100	856,400
Reno	3,950	40,300	5,287,400	4,150	48,000	6,739,200
Sedgwick	7,550	84,500	11,086,400	7,750	90,600	12,720,300
Stafford	250	2,900	380,500	250	3,300	463,300
Sumner	1,125	13,100	1,718,700	1,250	14,600	2,049,900
District Total	20,250	217,100	28,483,500	20,950	244,800	34,370,000
Northeast District:						
Atchison	1,675	19,200	2,519,000	1,800	21,700	3,046,700
Brown	2,525	32,400	4,250,900	2,650	32,000	4,492,800
Doniphan	925	9,300	1,220,200	950	10,500	1,474,200
Jackson	2,050	22,000	2,886,400	2,025	22,800	3,201,100
Jefferson	2,725	27,300	3,581,700	2,750	30,300	4,254,100
Leavenworth	3,825	40,500	5,313,600	4,025	44,300	6,219,700
Marshall	3,450	38,900	5,103,700	3,500	39,100	5,489,700
Nemaha	5,800	73,400	9,630,100	6,350	82,500	11,583,000
Pottawatomie	2,375	25,500	3,345,600	2,100	23,100	3,243,300
Riley	1,500	16,600	2,177,900	1,500	16,500	2,316,600
Wyandotte	250	3,400	446,100	250	2,800	393,100
District Total	27,100	308,500	40,475,200	27,900	325,600	45,714,300
East Central District:						
Anderson	2,325	23,300	3,056,900	2,125	25,100	3,524,000
Chase	250	2,500	328,000	200	2,400	337,000
Coffey	500	5,000	656,000	400	4,700	659,900
Douglas	2,875	32,400	4,250,900	3,075	35,900	5,040,300
Franklin	3,025	35,600	4,670,700	3,375	39,800	5,587,900
Geary	825	10,100	1,325,100	925	10,900	1,530,400
Johnson	875	11,500	1,508,800	1,000	12,100	1,698,800
Linn	1,300	13,900	1,823,700	1,225	15,200	2,134,100
Lyon	1,150	11,500	1,508,800	1,000	11,400	1,600,600
Miami	2,125	22,400	2,938,900	2,125	25,100	3,524,000
Morris	1,600	16,300	2,138,500	1,575	18,600	2,611,400
Osage	600	6,000	787,200	650	7,700	1,081,100
Shawnee	625	6,300	826,600	500	5,900	828,400
Wabaunsee	1,025	10,300	1,351,400	1,025	11,700	1,642,700
District Total	19,100	207,100	27,171,500	19,200	226,500	31,800,600
Southeast District:						
Allen	2,275	25,000	3,280,000	2,150	23,000	3,229,200
Bourbon	1,950	22,000	2,886,400	1,800	19,000	2,667,600
Butler	1,625	22,300	2,925,700	1,950	21,600	3,032,700
Chautauqua	450	4,500	590,400	475	5,000	702,000
Cherokee	375	3,800	498,600	275	2,900	407,200
Cowley	950	9,500	1,246,400	925	9,800	1,375,900
Crawford	1,225	12,300	1,613,800	1,150	12,100	1,698,800
Elk	250	2,500	328,000	275	2,900	407,200
Greenwood	1,400	18,200	2,387,800	1,800	19,000	2,667,600
Labette	2,000	21,600	2,833,900	2,050	21,900	3,074,800
Montgomery	1,175	11,800	1,548,200	1,150	12,100	1,698,800
Neosho	2,075	23,600	3,096,300	2,000	22,500	3,159,000
Wilson	725	7,300	957,800	625	6,600	926,600
Woodson	525	5,300	695,400	525	5,500	772,200
District Total	17,000	189,700	24,888,700	17,150	183,900	25,819,600
State	121,500	1,330,000	174,496,000	123,500	1,397,000	196,139,000

1. Average number during year.

CHICKENS ON FARMS

County	Chickens[1] December 1, 1980		Chickens[1] December 1, 1981	
	Number	Value, dollars	Number	Value, dollars
Northwest District:				
Cheyenne	1,000	1,600	1,100	1,700
Decatur	1,500	2,400	1,600	2,400
Graham	1,000	1,600	1,100	1,700
Norton	1,400	2,200	1,500	2,300
Rawlins	2,600	4,200	2,800	4,100
Sheridan	3,000	4,800	3,200	4,700
Sherman	1,500	2,400	1,600	2,400
Thomas	1,000	1,600	1,100	1,700
District total	13,000	20,800	14,000	21,000
West Central District:				
Gove	1,000	1,600	1,000	1,500
Greeley	10,000	16,000	10,600	15,700
Lane	2,000	3,200	2,100	3,200
Logan	1,000	1,600	1,100	1,700
Ness	2,000	3,200	2,100	3,200
Scott	1,000	1,600	1,000	1,500
Trego	2,000	3,200	2,100	3,200
Wallace	1,000	1,600	1,000	1,500
Wichita	1,000	1,600	1,000	1,500
District total	21,000	33,600	22,000	33,000
Southwest District:				
Clark	500	800	500	800
Finney	2,000	3,200	2,200	3,300
Ford	1,000	1,600	1,100	1,700
Grant	1,000	1,600	1,100	1,700
Gray	1,000	1,600	1,100	1,700
Hamilton	500	800	500	800
Haskell	1,000	1,600	1,100	1,700
Hodgeman	1,000	1,600	1,200	1,800
Kearny	1,000	1,600	1,100	1,700
Meade	900	1,400	1,000	1,500
Morton	500	800	500	800
Seward	500	800	500	800
Stanton	600	1,000	600	900
Stevens	500	800	500	800
District total	12,000	19,200	13,000	20,000
North Central District:				
Clay	83,000	132,800	221,000	331,300
Cloud	2,000	3,200	2,100	3,200
Jewell	3,500	5,600	3,500	5,300
Mitchell	1,500	2,400	1,600	2,400
Osborne	2,500	4,000	2,600	3,900
Ottawa	2,500	4,000	2,600	3,900
Phillips	2,500	4,000	2,600	3,900
Republic	2,000	3,200	2,100	3,200
Rooks	2,000	3,200	2,100	3,200
Smith	2,500	4,000	2,600	3,900
Washington	5,000	8,000	5,200	7,800
District total	109,000	174,400	248,000	372,000
Central District:				
Barton	33,000	52,800	39,000	58,500
Dickinson	18,200	29,100	19,900	30,000
Ellis	2,000	3,200	2,200	3,300
Ellsworth	3,000	4,800	3,200	4,800
Lincoln	2,000	3,200	2,100	3,200
McPherson	224,000	358,400	201,000	301,600
Marion	175,000	280,000	212,000	318,100
Rice	2,000	3,200	2,100	3,200
Rush	6,800	10,900	7,200	10,800
Russell	2,000	3,200	2,200	3,300
Saline	2,000	3,200	2,100	3,200
District total	470,000	752,000	493,000	740,000

CHICKENS ON FARMS—*Concluded*

County	Chickens[1] December 1, 1980		Chickens[1] December 1, 1981	
	Number	Value, dollars	Number	Value, dollars
South Central District:				
Barber	4,800	7,700	5,100	7,700
Comanche	1,000	1,600	1,100	1,700
Edwards	1,000	1,600	1,000	1,500
Harper	133,000	212,800	83,000	124,400
Harvey	98,000	156,800	112,000	167,900
Kingman	15,000	24,000	8,100	12,200
Kiowa	1,000	1,600	1,000	1,500
Pawnee	1,000	1,600	1,100	1,700
Pratt	5,200	8,300	3,500	5,300
Reno	363,000	580,800	369,000	553,000
Sedgwick	151,000	241,600	108,000	161,900
Stafford	1,000	1,600	1,000	1,500
Sumner	3,000	4,800	3,100	4,700
District total	778,000	1,244,800	697,000	1,045,000
Northeast District:				
Atchison	2,900	4,600	3,100	4,700
Brown	3,300	5,300	3,500	5,300
Doniphan	2,500	4,000	2,700	4,100
Jackson	54,000	86,400	70,000	105,200
Jefferson	3,500	5,600	3,700	5,600
Leavenworth	5,000	8,000	5,100	7,700
Marshall	9,000	14,400	7,800	11,700
Nemaha	36,000	57,600	43,000	64,500
Pottawatomie	6,500	10,400	6,800	10,200
Riley	31,000	49,600	31,000	46,500
Wyandotte	4,300	6,900	4,300	6,500
District total	158,000	252,800	181,000	272,000
East Central District:				
Anderson	40,000	64,000	71,000	106,400
Chase	32,000	51,200	19,000	28,500
Coffey	67,000	107,200	73,000	109,400
Douglas	3,000	4,800	3,100	4,600
Franklin	4,000	6,400	4,200	6,300
Geary	2,500	4,000	2,600	3,900
Johnson	10,700	17,100	11,700	17,500
Linn	2,000	3,200	2,100	3,100
Lyon	90,000	144,000	123,000	184,300
Miami	14,500	23,200	15,100	22,600
Morris	2,500	4,000	2,600	3,900
Osage	3,500	5,600	3,600	5,400
Shawnee	24,000	38,400	25,000	37,500
Wabaunsee	229,300	366,900	184,000	275,600
District total	525,000	840,000	540,000	809,000
Southeast District:				
Allen	4,000	6,400	4,200	6,200
Bourbon	3,000	4,800	3,100	4,700
Butler	20,500	32,800	23,000	34,200
Chautauqua	2,000	3,200	2,100	3,200
Cherokee	2,000	3,200	2,100	3,200
Cowley	2,500	4,000	2,600	3,900
Crawford	3,500	5,600	3,700	5,500
Elk	2,000	3,200	2,100	3,200
Greenwood	2,000	3,200	2,100	3,200
Labette	2,000	3,200	2,100	3,200
Montgomery	3,000	4,800	3,100	4,700
Neosho	3,000	4,800	3,100	4,700
Wilson	2,500	4,000	2,600	3,900
Woodson	2,000	3,200	2,100	3,200
District total	54,000	86,400	58,000	87,000
State	2,140,000	3,424,000	3,266,000	3,399,000

1. Excludes broilers.

LAYERS, EGG PRODUCTION AND VALUE, 1980-81

County	1980			1981		
	Layers,[1] Number	Eggs Produced (000)	Farm Value, Dollars	Layers,[1] Number	Eggs Produced (000)	Farm Value, Dollars
Northwest District:						
Cheyenne	1,200	270	10,000	800	192	8,400
Decatur	1,900	427	15,800	1,200	289	12,700
Graham	1,200	270	10,000	800	192	8,400
Norton	1,500	337	12,400	1,100	265	11,600
Rawlins	4,200	944	34,800	1,900	457	20,000
Sheridan	3,100	696	25,700	2,200	529	23,200
Sherman	1,900	427	15,800	1,200	289	12,700
Thomas	1,900	427	15,800	800	192	8,400
District total	16,900	3,798	140,300	10,000	2,405	105,400
West Central District:						
Gove	1,500	337	12,500	800	192	8,400
Greeley	9,000	2,022	74,700	9,200	2,213	97,000
Lane	1,500	337	12,500	1,600	385	16,900
Logan	800	180	6,600	800	192	8,400
Ness	30,000	6,742	248,900	1,600	385	16,900
Scott	800	180	6,600	800	192	8,400
Trego	14,000	3,146	116,200	1,600	385	16,900
Wallace	800	180	6,600	800	192	8,400
Wichita	800	180	6,600	800	192	8,400
District Total	59,200	13,304	491,200	18,000	4,328	189,700
Southwest District:						
Clark	400	90	3,300	400	96	4,200
Finney	2,700	606	22,400	1,700	409	18,000
Ford	1,500	337	12,400	900	217	9,500
Grant	800	180	6,700	900	217	9,500
Gray	800	180	6,700	900	217	9,500
Hamilton	400	90	3,300	400	96	4,200
Haskell	1,900	427	15,800	800	192	8,400
Hodgeman	1,500	337	12,400	800	192	8,400
Kearny	800	180	6,700	800	192	8,400
Meade	800	180	6,700	700	169	7,400
Morton	400	90	3,300	400	96	4,200
Seward	400	90	3,300	400	96	4,200
Stanton	400	90	3,300	500	120	5,300
Stevens	400	90	3,300	400	96	4,200
District Total	13,200	2,967	109,600	10,000	2,405	105,400
North Central District:						
Clay	15,000	3,371	124,400	66,200	15,918	697,600
Cloud	1,900	427	15,800	1,600	385	16,900
Jewell	5,000	1,123	41,500	2,800	673	29,500
Mitchell	1,200	270	10,000	1,200	288	12,600
Osborne	2,300	517	19,100	2,000	481	21,100
Ottawa	2,300	517	19,100	2,000	481	21,100
Phillips	3,100	697	25,700	2,000	481	21,100
Republic	9,000	2,023	74,700	1,600	385	16,900
Rooks	1,500	337	12,400	1,600	385	16,900
Smith	2,300	517	19,100	2,000	481	21,100
Washington	7,700	1,730	63,900	4,000	962	42,200
District Total	51,300	11,529	425,700	87,000	20,920	917,000
Central District:						
Barton	20,000	4,495	165,900	28,100	6,757	296,200
Dickinson	20,000	4,495	165,900	15,000	3,607	158,100
Ellis	3,500	786	29,000	1,600	385	16,900
Ellsworth	3,500	787	29,100	2,400	577	25,300
Lincoln	2,700	607	22,400	1,600	385	16,900
McPherson	185,000	41,576	1,534,900	214,000	51,458	2,255,500
Marion	165,000	37,082	1,369,000	165,000	39,676	1,739,200
Rice	1,500	337	12,400	1,600	385	16,900
Rush	7,700	1,730	63,900	6,500	1,563	68,500
Russell	2,700	607	22,400	1,600	385	16,900
Saline	2,300	517	19,100	1,600	385	16,900
District Total	413,900	93,019	3,434,000	439,000	105,563	4,627,300

LAYERS, EGG PRODUCTION AND VALUE, 1980-81—*Concluded*

County	1980			1981		
	Layers,[1] Number	Eggs Produced (000)	Farm Value, Dollars	Layers,[1] Number	Eggs Produced (000)	Farm Value, Dollars
South Central District:						
Barber	1,500	337	12,400	4,400	1,058	46,400
Comanche	800	180	6,700	800	192	8,400
Edwards	1,500	337	12,400	800	192	8,400
Harper	109,000	24,496	904,300	101,000	24,287	1,064,600
Harvey	97,000	21,800	804,800	71,000	17,073	748,400
Kingman	14,000	3,146	116,100	10,200	2,453	107,500
Kiowa	800	180	6,700	800	192	8,400
Pawnee	2,300	517	19,100	800	192	8,400
Pratt	8,000	1,798	66,400	4,000	962	42,200
Reno	214,700	48,251	1,781,300	189,000	45,448	1,992,200
Sedgwick	135,000	30,340	1,120,100	105,000	25,249	1,106,800
Stafford	1,500	337	12,400	800	192	8,400
Sumner	7,700	1,730	63,900	2,400	577	25,300
District Total	593,800	133,449	4,926,600	491,000	118,067	5,175,400
Northeast District:						
Atchison	13,100	2,944	108,700	2,500	601	26,300
Brown	4,200	944	34,900	2,600	625	27,400
Doniphan	3,100	697	25,700	2,000	481	21,100
Jackson	57,700	12,967	478,700	50,000	12,024	527,000
Jefferson	4,200	944	34,900	2,800	673	29,500
Leavenworth	6,900	1,551	57,200	4,000	962	42,200
Marshall	17,500	3,933	145,200	6,800	1,635	71,700
Nemaha	59,000	13,259	489,500	35,000	8,417	369,000
Pottawatomie	9,200	2,067	76,300	5,200	1,250	54,800
Riley	25,000	5,618	207,400	24,000	5,771	252,900
Wyandotte	5,400	1,214	44,800	3,100	745	32,700
District Total	205,300	46,138	1,703,300	138,000	33,184	1,454,600
East Central District:						
Anderson	38,000	8,540	315,300	38,000	9,138	400,600
Chase	58,000	13,035	481,200	25,000	6,012	263,500
Coffey	54,000	12,136	448,000	66,000	15,870	695,600
Douglas	3,500	787	29,000	2,400	577	25,300
Franklin	5,800	1,303	48,100	3,200	769	33,700
Geary	2,300	517	19,100	2,000	481	21,100
Johnson	10,800	2,427	89,600	8,500	2,044	89,600
Linn	1,900	[1]427	15,800	1,600	385	16,900
Lyon	112,000	25,170	929,200	85,000	20,439	895,900
Miami	12,000	2,697	99,600	12,500	3,006	131,800
Morris	2,300	517	19,100	2,000	481	21,100
Osage	4,200	944	34,800	2,800	673	29,500
Shawnee	22,300	5,012	185,000	24,000	5,771	253,000
Wabaunsee	150,000	33,710	1,244,500	219,000	52,661	2,308,300
District Total	477,100	107,222	3,958,300	492,000	118,307	5,185,900
Southeast District:						
Allen	5,800	1,303	48,100	3,100	745	32,700
Bourbon	3,500	786	29,000	2,300	553	24,200
Butler	32,400	7,281	268,800	18,900	4,544	199,200
Chautauqua	1,900	427	15,800	1,600	385	16,900
Cherokee	2,700	607	22,400	1,600	385	16,900
Cowley	2,300	517	19,100	1,900	457	20,000
Crawford	4,200	944	34,800	2,700	649	28,400
Elk	1,900	427	15,800	1,600	385	16,900
Greenwood	1,500	337	12,400	1,600	385	16,900
Labette	2,700	607	22,400	1,600	385	16,900
Montgomery	3,500	787	29,100	2,300	553	24,200
Neosho	2,700	607	22,400	2,300	553	24,200
Wilson	2,300	517	19,100	1,900	457	20,000
Woodson	1,900	427	15,800	1,600	385	16,900
District Total	69,300	15,574	575,000	45,000	10,821	474,300
State	1,900,000	427,000	15,764,000	1,730,000	416,000	18,235,000

1. Hens and pullets of laying age at beginning of year.

MILK COWS AND MILK PRODUCED, 1980-81

Month	Milk Cows[1]		Milk Per Cow		Milk Production	
	1980	1981	1980	1981	1980	1981
	(000)		Pounds		Million Pounds	
January	121	123	870	920	105	113
February	122	123	810	855	99	105
March	122	124	855	975	108	121
April	122	124	930	1,000	113	124
May	122	125	985	1,015	120	127
June	123	125	930	935	114	117
July	123	125	910	930	112	116
August	123	125	920	930	113	116
September	123	124	905	920	111	114
October	123	124	920	945	113	117
November	123	124	890	905	109	112
December	123	124	920	930	113	115
Annual Average or Total	123	124	10,813[2]	11,266[2]	1,330	1,397

1. Includes dry cows. Excludes heifers not yet fresh.
2. Pounds of milk per cow for the year.

DAIRY PRODUCTS MANUFACTURED, 1974-81

Year	Number of plants*	Creamery butter (000 lbs.)	American cheese (000 lbs.)	Ice cream (000 gal.)	Ice milk (000 gal.)	Cottage cheese (000 lbs.)
1974	38	13,897	37,303	8,844	4,936	21,029
1975	34	12,478	27,493	7,563	4,213	23,319
1976	31	14,815	29,945	7,583	3,595	24,429
1977	30	16,154	26,448	7,325	4,509	22,827
1978	30	13,103	23,683	5,969	5,450	23,294
1979	30	11,862	20,675	6,340	4,926	23,173
1980	27	16,351	25,116	7,711	5,773	21,825
1981	26	18,661	25,835	8,261	5,223	21,533

* Excluding counter freezers.

LAYERS ON HAND AND EGGS PRODUCED, 1980-81

Month	Layers on Hand During Month		Eggs per 100 Layers		Eggs Produced	
	1980	1981	1980	1981	1980	1981
	(000)		Number		Millions	
December[1]	1,900	1,715	1,947	1,983	37	34
January	1,910	1,689	1,990	2,131	38	36
February	1,938	1,642	1,909	1,949	37	32
March	1,878	1,606	2,130	2,179	40	35
April	1,845	1,632	2,060	2,145	38	35
May	1,819	1,585	2,089	2,145	38	34
June	1,743	1,521	1,951	2,104	34	32
July	1,725	1,599	1,739	2,064	30	33
August	1,716	1,723	1,865	1,973	32	34
September	1,772	1,815	1,919	1,983	34	36
October	1,801	1,839	1,999	2,066	36	38
November	1,754	1,829	1,881	2,023	33	37
Annual Average or Total	1,817	1,683	235[2]	247[2]	427	416

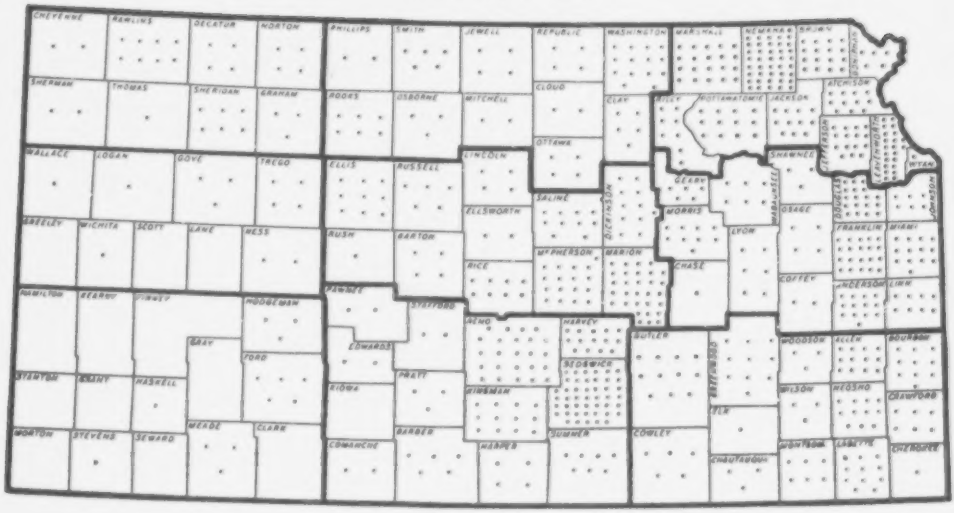
1. Preceding year.
2. Eggs per layer for the year.

HATCHERY PRODUCTION, 1974-81

Year	Number of hatcheries	Chicks hatched (000)	Poults hatched (000)	Value of chicks and poults hatched (000 dollars)
1974	18	6,505	1,031	3,171
1975	15	5,830	712	2,932
1976	12	5,247	1,604	3,271
1977	13	5,415	1,756	3,437
1978	12	4,278	1,734	2,837
1979	11	4,283	2,041	3,135
1980	11	2,879	2,470	3,019
1981	10	2,633	2,767	3,636

MILK PRODUCTION, 1981

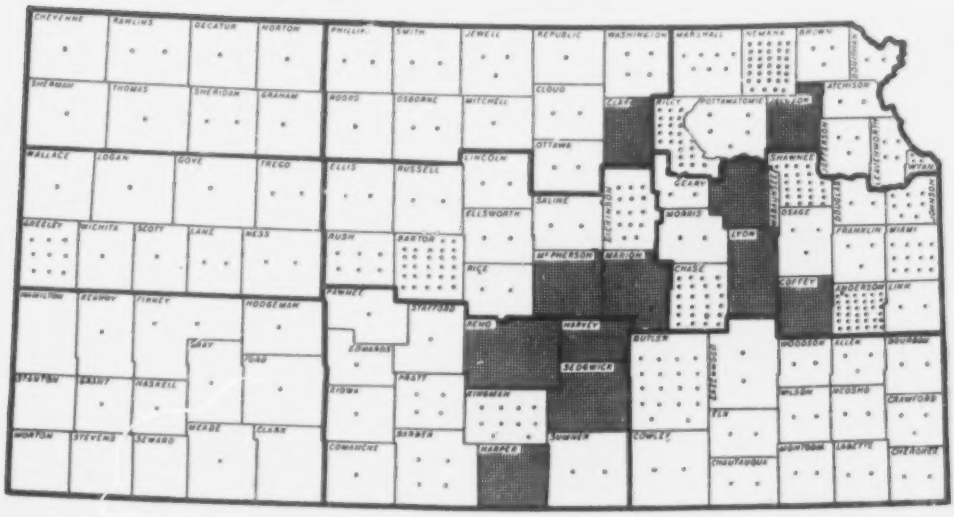
1 Dot=2,000,000 Lbs.



EGG PRODUCTION, 1981

1 Dot=250,000 Eggs

=10,000,000 Or More Eggs



FARM PRODUCTS PRICES AND INCOME

BY HERBERT L. VANDERBERRY

CASH RECEIPTS FALL

Cash receipts from farm marketings totaled $5.77 billion in 1981, a two percent drop from the 1980 total of $5.89 billion and eight percent short of the record $6.31 billion set in 1979. Both crops and livestock receipts reached their lowest levels since 1978. Crop receipts fell just one percent to $2.51 billion, while livestock and livestock product receipts dipped three percent totaling $3.27 billion. Livestock receipts continued to account for the largest share of the total at 57 percent, unchanged from 1980. Crop receipts accounted for the 43 percent residual.

Farm product prices generally declined from January through December with only slight gains in April. Several commodities suffered sizable price decreases over the 12 month period, resulting in a one point drop in the All Farm Products annual average index to 139 percent of its 1977 base. The index began at its peak of 147 in January and gradually decreased to an annual low of 127 in December. The 1981 price indexes have been converted from a 1967 to a 1977 base. The conversion factors by category are available in the April 1, 1982 Agricultural Prices release.

The Livestock Products Index bounced up and down in the early part of 1981 but thereafter continued downward until reaching a low of 124 percent of its base in December. Beef cattle prices were strongest during the January-April period of 1981 while hog prices rallied during the June-September period. The Dairy Products Index followed the seasonal course of the monthly milk price throughout the year and averaged 142 percent of its 1977 base.

The Crops Index peaked at 152 in January and bottomed out at 129 in September. Food grains showed the most strength with an annual average of 147 percent of its base. Wheat prices peaked in January at $4.04 per bushel, then rallied by the end of the year to $3.91 per bushel after weaker summer prices. Feed grains and hay took a beating in 1981 as sorghum grain dropped from $5.29 per cwt. in January to $3.74 per cwt. in November. Corn prices followed suit ranging from $3.43 per bushel in January to $2.50 per bushel in October. The all hay price held steady early in the year around the $70 per ton mark, but at midyear slid to the low $50's and remained to year's end. The annual index for hay was 133 percent of its 1977 base.

1980 FARM INCOME LOWER

Kansas net income per farm in 1980, the latest year for which data are available, dropped significantly to $9,835. This compares with the record level of $16,525 per farm in 1979. Cash receipts from farm marketings fell seven percent in 1980 while government payments plunged 26 percent fueling the net income decline. Other farm and non-money income showed nominal gains from the previous year. Gross income per farm reached $85,190, but fell short of the record $90,715 level set in 1979.

Farm production expenses for 1980 continued to hit record levels reaching $5.652 billion, two percent higher than expenses for 1979 but the smallest annual increase since expenses declined in 1974. Livestock expenses dropped 20 percent, only to be offset by substantial increases in other operating expense categories. The only other area registering a decline in expense was rent to landlords, falling just three percent.

CASH RECEIPTS AND FARM INCOME, 1947-1981

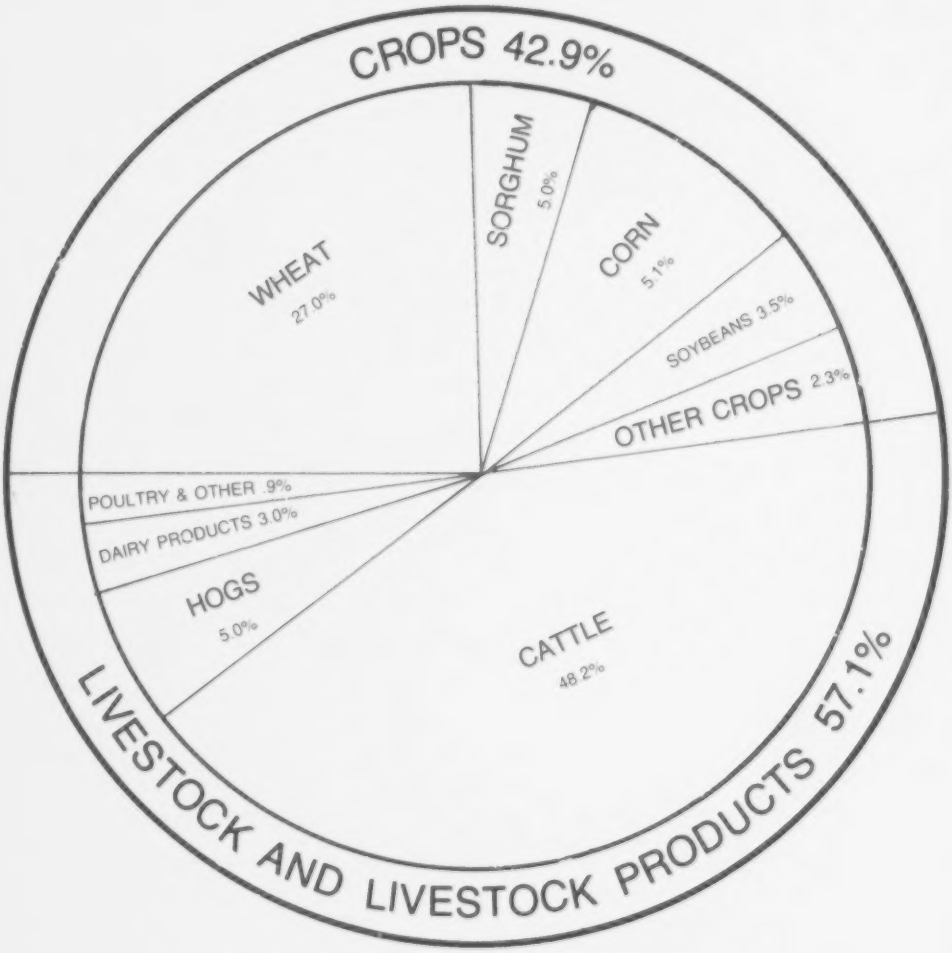
Year	Cash receipts					Realized income per farm	
	From farm marketings			From government payments	Total receipts & payments	Gross	Net
	Crops	Livestock & livestock products	Total				
	1,000 Dollars					Dollars	
1947	615,295	599,308	1,214,603	11,737	1,226,340		
1948	584,354	549,024	1,133,378	7,365	1,140,743		
1949	440,648	539,906	980,554	6,079	986,633	7,742	3,260
1950	461,455	571,820	1,033,275	9,117	1,042,392	8,254	3,048
1951	395,301	699,117	1,094,418	7,992	1,102,410	8,971	3,078
1952	546,567	634,323	1,180,890	11,352	1,192,242	9,849	3,737
1953	467,778	494,271	962,049	6,049	968,098	8,276	2,976
1954	477,128	483,827	960,955	8,638	969,593	8,404	2,677
1955	373,745	474,641	848,386	7,051	855,437	7,700	1,913
1956	381,398	495,266	876,664	16,869	893,533	8,088	2,495
1957	261,447	414,693	676,140	94,609	770,749	7,141	711
1958	609,263	557,695	1,166,958	34,965	1,201,923	11,217	3,195
1959	585,563	626,010	1,211,573	28,062	1,239,635	11,691	3,309
1960	611,877	605,311	1,217,188	28,455	1,245,643	12,075	2,896
1961	632,469	700,598	1,333,067	83,260	1,416,327	14,042	3,532
1962	641,187	762,881	1,404,068	105,362	1,509,430	15,220	3,975
1963	574,569	796,797	1,371,366	112,369	1,483,735	15,314	3,349
1964	442,895	742,029	1,184,924	188,763	1,373,687	14,678	3,375
1965	491,255	715,369	1,206,624	207,259	1,413,883	15,433	2,634
1966	537,574	975,860	1,513,434	225,641	1,739,075	19,413	4,703
1967	507,159	954,075	1,461,234	212,379	1,673,613	19,176	3,704
1968	480,114	976,484	1,456,598	228,176	1,684,774	19,788	3,033
1969	586,712	1,149,407	1,736,119	235,247	1,971,366	23,523	3,992
1970	719,493	1,265,277	1,984,770	227,639	2,212,409	26,696	5,384
1971	775,393	1,457,888	2,233,281	217,741	2,451,022	29,875	6,042
1972	1,016,119	1,962,729	2,978,848	246,409	3,225,257	39,455	10,488
1973	1,832,676	2,336,082	4,168,758	150,445	4,319,203	53,213	15,032
1974	2,115,658	1,850,619	3,966,277	22,457	3,988,734	50,325	14,833
1975	1,775,749	1,536,935	3,312,684	38,394	3,351,078	44,006	6,214
1976	1,698,916	1,907,908	3,606,824	50,824	3,657,648	49,228	5,611
1977	1,635,604	2,217,485	3,853,089	236,689	4,089,778	56,583	8,170
1978	1,287,394	2,924,753	4,212,147	300,926	4,513,073	63,294	4,949
1979	2,550,929	3,757,367	6,308,296	125,838	6,434,134	90,715	16,525
1980	2,524,929	3,361,761	5,886,690	93,251	5,979,941	85,190	9,835
1981	2,508,477	3,265,881	5,774,358	N/A	N/A	N/A	N/A

GROSS AND NET FARM INCOME, 1970-81

Year	Realized gross farm income					Farm production expenses	Realized net farm income	Net change in farm inventories	Total net farm income
	Cash receipts from farm marketings	Government payments	Non-money income	Other farm income	Total[1]				
	Million Dollars								
1970	1,984.8	227.6	84.7	25.5	2,322.5	1,854.2	468.4	71.7	540.1
1971	2,233.3	217.7	88.0	30.3	2,569.3	2,049.7	519.6	99.4	619.0
1972	2,978.8	246.4	97.3	31.1	3,353.6	2,462.2	891.5	5.0	896.4
1973	4,168.8	150.4	112.3	38.4	4,469.9	3,207.3	1,262.6	162.2	1,424.8
1974	3,966.3	22.5	141.3	46.9	4,177.0	2,941.7	1,235.3	—326.0	909.3
1975	3,312.7	38.4	154.4	59.0	3,564.5	3,061.2	503.4	142.1	645.5
1976	3,606.8	50.8	166.4	64.9	3,889.0	3,445.8	443.2	—5.5	437.7
1977	3,853.1	236.7	185.3	81.8	4,356.9	3,727.8	629.1	—179.4	449.6
1978	4,212.1	300.9	207.7	89.5	4,810.3	4,434.2	376.1	328.7	704.8
1979	6,308.3	125.8	257.5	112.1	6,803.6	5,564.2	1,239.4	9.7	1,249.1
1980	5,886.7	93.3	292.8	116.6	6,389.3	5,651.6	737.7	—200.3	537.3
1981	5,774.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1. Total may not add due to rounding.

CASH RECEIPTS, 1980



PERCENT OF CASH RECEIPTS FROM MARKETINGS

Year	Crops			Livestock and their products						Total crops and livestock
	Wheat	Other crops	Total crops	Cattle and calves	Hogs	Dairy products	Poultry and eggs	Other livestock	Total livestock and products	
	Percent of total									
1930	24.3	10.2	34.5	29.1	15.0	9.0	10.5	1.9	65.5	100.0
1940	28.8	7.1	35.9	31.9	8.7	12.4	8.6	2.5	64.1	100.0
1950	33.7	11.0	44.7	34.0	6.6	6.1	5.5	3.1	55.3	100.0
1960	35.8	14.4	50.2	35.7	4.9	5.1	2.8	1.3	49.0	100.0
1970	22.4	13.9	36.3	49.9	7.4	4.8	1.1	.5	63.7	100.0
1975	32.6	21.0	53.6	33.8	7.6	3.8	.7	.7	46.4	100.0
1976	26.7	20.4	47.1	40.6	7.3	3.7	.6	.7	52.9	100.0
1977	23.1	19.5	42.6	45.2	7.4	3.5	.5	.8	57.4	100.0
1978	15.9	14.7	30.6	57.0	7.6	3.4	.5	.9	69.4	100.0
1979	25.4	15.0	40.4	50.7	5.3	2.5	.4	.7	59.6	100.0
1980	27.0	15.9	42.9	48.2	5.0	3.0	.3	.6	57.1	100.0

FARM PRODUCTION EXPENSES, 1970-80

Year	Farm operating expenses						
	Feed	Livestock	Seed	Fertilizer and lime	Repairs and operations of capital items	Miscellaneous	Hired labor
	Million dollars						
1970	277.3	417.7	28.0	85.4	169.6	226.8	66.2
1971	298.5	498.2	31.6	84.5	174.6	249.4	71.4
1972	362.7	716.0	36.3	93.5	173.4	279.2	72.0
1973	534.0	813.3	62.4	127.9	199.4	322.7	88.2
1974	475.9	387.0	72.8	228.0	260.9	360.1	101.3
1975	385.2	425.9	77.0	270.1	302.3	406.2	113.7
1976	501.2	604.2	90.9	249.3	369.2	441.2	126.0
1977	500.0	736.6	70.0	233.4	415.4	535.6	136.3
1978	540.6	1,215.6	77.5	213.7	471.0	606.6	136.2
1979	674.6	1,622.5	84.3	247.7	576.7	746.8	175.3
1980	685.1	1,302.2	97.0	329.8	690.3	824.8	200.8

Year	Total current farm operating expenses*	Depreciation and other consumption of farm capital	Taxes on farm property	Interest on farm mortgage debt	Net rent to non-farm landlords	Total production expenses*
	Million dollars					
1970	1,271.0	250.7	119.6	62.1	150.7	1,854.2
1971	1,408.2	276.7	122.9	66.5	175.3	2,049.7
1972	1,733.0	286.2	123.1	74.4	245.5	2,462.2
1973	2,148.0	350.2	119.2	87.6	502.3	3,207.3
1974	1,886.0	413.0	138.8	104.9	399.0	2,941.7
1975	1,980.4	483.4	144.7	115.9	336.8	3,061.2
1976	2,382.0	520.4	154.6	134.7	254.1	3,445.8
1977	2,627.3	510.4	179.5	155.4	255.2	3,727.8
1978	3,261.2	553.2	175.4	179.5	264.9	4,434.2
1979	4,128.0	698.0	174.9	215.2	348.1	5,564.2
1980	4,130.9	736.2	180.9	266.9	337.6	5,651.6

* Items may not add because of rounding.

FARM ASSETS AND DEBTS, 1978-81

	1978	1979	1980	1981
	Number			
Farms	76,000	75,000	75,000	76,000
Assets	Million dollars			
Total farm assets	25,283.7	30,291.5	34,907.1	35,697.1
Real estate	19,091.5	22,894.9	26,199.3	26,991.2
Livestock and poultry	1,451.2	2,439.3	2,948.9	2,752.7
Machinery and motor vehicles	2,807.1	3,108.1	3,593.2	3,785.4
Crops	1,123.4	979.1	1,167.8	1,100.6
Financial assets	810.5	870.2	997.8	1,067.1
Claims				
Total farm debt	5,083.4	5,364.8	6,051.6	6,459.5
Real estate debt	2,202.7	2,309.4	2,726.1	3,036.9
Non-real estate debt	2,315.7	2,662.4	3,103.5	3,210.6
CCC loans	565.0	393.0	222.0	212.0
Equity	20,200.3	24,926.7	28,855.5	29,237.6
Ratios	Ratio			
Equity/assets	79.9	82.3	82.7	81.9
Debt/equity	25.2	21.5	21.0	22.1
Debt/assets, total	20.1	17.7	17.3	18.1

AGRICULTURAL WORKERS, 1976-81

Year	January			April			July			October		
	Family	Hired	Total	Family	Hired	Total	Family	Hired	Total	Family	Hired	Total
	Thousand Workers											
1976	66	14	80	79	19	98	85	31	116	81	25	106
1977	69	15	84	70	15	85	87	27	114	76	31	107
1978	64	10	74	65	18	83	90	22	112	76	23	99
1979	50	13	63	59	19	78	92	32	124	89	24	113
1980	68	20	88	67	21	88	91	29	120	89	31	120
1981	73	23	96	85	31	116	.....	.....	.....	.....	.....	.....

FARM WAGE RATES, 1976-81

Year	January				April				July				October			
	All hired	Per hour cash	Field	Live-stock	All hireu	Per hour cash	Field	Live-stock	All hired	Per hour cash	Field	Live-stock	All hired	Per hour cash	Field	Live-stock
	Dollars per hour															
1976[1]	2.89	2.72	2.77[1]		2.93	2.71	2.77[1]		2.86	2.52	2.76[1]		3.00	2.95	2.90[1]	
1977[1]	3.13	2.75	3.00[1]		3.08	3.12	2.98[1]		2.90	2.80	2.90	2.60	3.12	3.00	2.95	2.70
1978	3.47	3.10	3.10	3.00	3.47	3.16	3.15	2.82	3.30	3.24	3.00	2.91	3.39	3.40	2.90	2.86
1979	3.43	3.45	3.20	3.20	3.70	3.60	3.25	3.20	3.61	3.63	3.55	3.40	3.60	3.73	3.65	3.57
1980	3.93	4.00	3.68	3.51	3.72	3.75	3.60	3.45	3.70	3.76	3.48	3.70	3.73	3.90	3.62	3.51
1981	4.10	3.78	3.70	4.00	3.89	3.69	3.85	3.71	.....	.....	.....	.....	.....	.....	.....	.....

1. Field and livestock rates combined.

FARMLAND VALUES AND RENTS, 1976-81

Year	Cropland						Pasture		All Farmland	
	Value per Acre			Rent per Acre			Value per Acre	Rent per Acre	Value per Acre	Rent per Acre
	Irrigated	Non-Irrigated	All Crop-land	Irrigated	Non-Irrigated	All Crop-land				
	Dollars									
1976	715	377	406	59.10	23.30	26.50	234	8.60	344	20.00
1977	775	412	446	57.50	24.80	27.90	258	9.10	374	20.30
1978	696	458	510	51.70	25.40	27.90	266	9.60	415	20.50
1979	801	514	533	58.80	27.90	30.00	306	11.60	455	23.70
1980	850	586	604	60.90	30.60	32.70	351	12.40	517	25.70
1981	923	641	676	64.00	31.70	34.60	372	12.60	587	27.00

Index Numbers of Prices Received by Farmers
(1977 = 100)

Month	Crops					Livestock and Livestock Products			
	Food grains	Feed grains	Hay	Oil seeds	Total crops	Meat animals	Dairy products	Total livestock and products	All commodities
1981									
January	154	156	152	124	152	145	144	145	147
February	151	152	152	116	148	147	144	147	147
March	146	149	149	117	145	139	142	139	142
April	150	150	154	119	147	148	140	147	147
May	146	149	151	116	144	134	138	135	138
June	142	151	134	110	142	137	137	137	139
July	141	149	126	115	141	134	137	134	137
August	140	133	113	110	134	140	137	140	138
September	143	116	115	98	129	141	141	141	137
October	146	113	115	95	130	132	144	133	131
November	151	112	113	95	132	131	146	132	132
December	149	113	115	94	131	122	146	124	127
Annual Average	147	137	132	109	140	138	141	138	139

PRICES RECEIVED BY FARMERS
Monthly Averages, 1981

Month	Wheat per bushel	Corn per bushel	Sorghum grain per cwt.	Soybeans per bushel	Alfalfa [1] hay (baled) per ton	Other hay [1] (baled) per ton	All Hay [1] (baled) per ton
	Dollars						
January	4.04	3.43	5.29	7.58	72.50	68.00	71.00
February	3.96	3.38	5.11	7.06	72.50	68.00	71.50
March	3.83	3.31	5.05	7.13	71.00	69.00	70.00
April	3.92	3.33	5.06	7.26	70.00	69.00	70.00
May	3.81	3.28	5.09	7.07	66.00	60.00	65.00
June	3.71	3.37	5.07	6.70	62.00	56.00	61.00
July	3.70	3.32	4.98	7.02	60.00	49.00	58.00
August	3.67	3.05	4.31	6.73	60.00	46.00	58.00
September	3.74	2.58	3.94	5.98	61.00	45.00	59.00
October	3.82	2.50	3.82	5.77	59.00	44.00	57.00
November	3.95	2.52	3.74	5.77	56.00	43.00	53.00
December	3.91	2.54	3.75	5.73	57.00	43.00	54.00

Month	Hogs per cwt.	Calves per cwt.	Lambs per cwt.	Milk cows [1] each	Milk per cwt.	Eggs [1] per dozen
	Dollars					Cents
January	40.50	72.20	50.10	1,240.00	14.30	53.2
February	41.10	71.40	54.20	1,190.00	14.30	49.5
March	38.50	67.80	55.80	1,160.00	14.10	49.0
April	38.60	71.60	58.30	1,160.00	13.90	54.1
May	40.70	62.80	62.80	1,170.00	13.70	43.4
June	47.80	62.80	66.20	1,170.00	13.60	44.8
July	48.30	60.60	58.90	1,170.00	13.60	48.6
August	48.40	65.80	56.80	1,180.00	13.60	47.9
September	47.10	65.30	49.90	1,180.00	14.00	57.1
October	42.93	63.30	51.20	1,190.00	14.30	54.5
November	40.40	61.40	45.90	1,190.00	14.50	63.9
December	37.50	59.50	48.70	1,200.00	14.50	—

1. Mid-Montl

PRICES RECEIVED FOR BEEF CATTLE, 1980-1981

Month	1980			1981		
	Steers heifers	Cows	All cattle	Steers heifers	Cows	All cattle
	Dollars Per Cwt.					
January	69.00	49.10	65.70	66.60	43.30	61.90
February	77.20	53.50	75.50	66.00	46.00	62.80
March	71.00	51.80	69.20	62.30	42.90	59.70
April	64.40	44.70	62.30	65.30	46.80	63.70
May	63.50	43.30	61.20	59.60	43.30	57.10
June	64.30	43.00	61.60	60.50	42.30	57.40
July	68.30	42.90	64.70	58.30	42.10	55.70
August	69.00	43.80	65.80	61.10	42.40	58.80
September	68.90	45.70	64.90	62.20	41.70	59.30
October	68.10	44.90	63.00	59.00	38.50	55.60
November	65.70	44.40	60.10	58.60	36.60	55.50
December	66.10	42.40	61.10	56.40	34.50	51.90

U. S. PARITY PRICE FOR FARM PRODUCTS, 1981

Month	Wheat		Corn		Sorghum Grain		Beef Cattle		Hogs	
	Parity price per bu.	Kansas Avg. price as % of parity	Parity price per bu.	Kansas Avg. price as % of parity	Parity price per Cwt.	Kansas Avg. price as % of parity	Parity price per Cwt.	Kansas Avg. price as % of parity	Parity price per Cwt.	Kansas Avg. price as % of parity
January	$6.95	58	$4.79	72	$8.07	66	$90.40	68	$80.90	50
February	6.98	57	4.80	70	8.10	63	90.80	69	81.20	51
March	7.02	55	4.84	68	8.15	62	91.40	65	81.70	47
April	7.09	55	4.88	68	8.23	61	92.20	69	82.50	47
May	7.08	54	4.87	67	8.22	62	92.10	62	82.40	49
June	7.11	52	4.89	69	8.25	61	92.50	62	82.70	58
July	7.10	52	4.89	68	8.24	60	92.40	60	82.60	58
August	7.11	52	4.89	62	8.25	52	92.50	64	82.70	59
September	7.13	52	4.91	53	8.27	48	92.70	64	82.90	57
October	7.10	54	4.89	51	8.24	46	92.40	60	82.60	52
November	7.11	56	4.89	52	8.25	45	92.50	60	82.70	49
December	7.07	55	4.87	52	8.20	46	91.90	56	82.20	46

U. S. PARITY PRICE FOR FARM PRODUCTS, 1981

Month	Soybeans		Eggs		Calves		Lambs		Milk	
	Parity price per bu.	Kansas Avg. price as % of parity	Parity price per doz.	Kansas Avg. price as % of parity	Parity price per Cwt.	Kansas Avg. price as % of parity	Parity price per Cwt.	Kansas Avg. price as % of parity	Parity price per Cwt.	Kansas Avg. price as % of parity
January	$12.20	o2	$1.09	49	$108.00	67	$101.00	50	$19.70	73
February	12.20	58	1.09	46	108.00	66	102.00	53	19.80	72
March	12.30	58	1.10	45	109.00	62	102.00	55	19.90	71
April	12.40	59	1.11	49	110.00	65	103.00	57	20.10	69
May	12.40	57	1.11	39	110.00	57	103.00	61	20.10	68
June	12.50	54	1.11	41	110.00	57	103.00	64	20.20	67
July	12.50	56	1.11	44	110.00	55	103.00	57	20.10	68
August	12.50	54	1.11	43	110.00	60	103.00	55	20.20	67
September	12.50	48	1.11	51	110.00	59	104.00	48	20.20	69
October	12.50	46	1.11	50	110.00	58	103.00	50	20.10	71
November	12.50	46	1.11	58	110.00	56	103.00	45	20.20	72
December	12.40	46	—	—	109.00	55	103.00	47	20.20	73

PRICES PAID FOR PRODUCTION ITEMS

Item	1977	1978	1979	1980	1981
	Dollars				
Electricity, per K.W.H.	.040	.045	.048	.050	.058
Gasoline, Tank Truck, per gallon	.571	.598	.813	1.140	1.268
Diesel Fuel, per gallon	.435	.456	.692	.976	1.135

PRICES PAID FOR FEEDS, 1981

Month	Beef cattle Concentrate 32-36%	Cotton-seed Meal 41%	Soybean Meal 44%	Corn Meal	Hog Feed 14-18%	Hog Feed 38-42%	Bran	Middlings
	Dollars Per Cwt.							
January	12.00	14.00	15.00	7.50	11.50	16.10	9.30	9.20
February	12.00	14.00	14.00	7.50	11.50	15.60	9.40	9.40
March	12.00	14.00	14.00	7.70	11.00	15.50	9.30	9.40
April	11.50	14.00	14.50	8.10	11.50	15.60	9.00	8.90
May	11.50	13.50	14.50	7.80	11.00	16.00	8.90	9.10
June	11.50	13.50	14.00	7.70	11.06	15.50	8.70	8.50
July	11.00	14.00	14.00	7.20	11.00	15.00	8.90	8.20
August	11.50	13.50	14.00	7.80	11.00	15.50	8.80	8.00
September	11.50	13.00	13.00	7.40	11.00	15.00	8.40	8.60
October	11.00	13.50	13.00	6.90	10.50	14.50	8.20	8.10
November	11.50	13.50	12.50	6.30	10.50	15.00	8.00	7.80
December	11.00	13.00	12.00	6.60	10.50	14.50	7.90	7.60

Month	Mixed Dairy Feed 14%	Mixed Dairy Feed 16%	Mixed Dairy Feed 32%	Laying Feed	Stock Salt
	Dollars per Ton				Dollars per Cwt.
January	180.00	196.00	265.00	235.00	2.70
February	184.00	200.00	270.00	235.00	2.80
March	182.00	196.00	265.00	230.00	2.90
April	190.00	205.00	270.00	230.00	2.95
May	190.00	205.00	280.00	235.00	2.90
June	205.00	195.00	285.00	225.00	2.85
July	197.00	192.00	255.00	230.00	3.00
August	195.00	190.00	250.00	225.00	2.85
September	197.00	205.00	265.00	210.00	2.90
October	180.00	189.00	280.00	210.00	2.65
November	175.00	182.00	275.00	215.00	2.70
December	170.00	186.00	270.00	215.00	2.85

PRICES PAID FOR FEEDER PIGS, 1975-81

Month	1975	1976	1977	1978	1979	1980	1981
	Dollars per Cwt.						
February	50.90	95.00	54.00	79.50	97.00	60.00	69.00
May	83.00	102.00	81.50	105.00	93.00	47.00	74.00
August	91.50	78.00	77.00	96.50	51.00	58.50	80.50
November	108.00	57.00	79.50	107.00	51.00	79.00	68.50

Historic Farm Facts Livestock, 1867-1982

Livestock on Kansas farms January 1, and aggregate value

Year	Horses (thousands)	Mules (thousands)	Hogs * (thousands)	All cattle and calves (thousands)	Milk cows** (thousands)	Stock sheep (thousands)	Value of all livestock (thousands)
1867	60	6	330	377	82	147	$12,710
1868	80	9	350	402	89	147	12,935
1869	100	11	375	473	109	162	17,921
1870	119	15	410	571	141	178	24,956
1871	150	20	455	696	162	178	34,964
1872	175	22	610	787	191	187	31,271
1873	200	23	750	859	214	196	32,019
1874	230	30	950	972	231	216	35,746
1875	240	33	750	892	236	216	28,451
1876	252	36	800	870	260	259	35,575
1877	300	45	1,100	949	273	300	42,128
1878	350	52	1,550	1,036	295	400	51,286
1879	420	62	1,675	1,132	322	500	52,254
1880	456	70	1,700	1,247	351	800	64,072
1881	485	70	1,600	1,408	400	1,040	72,227
1882	500	68	1,650	1,601	448	1,150	80,539
1883	550	70	1,800	1,835	488	1,245	106,059
1884	620	80	2,500	2,141	527	1,270	134,487
1885	675	89	3,000	2,282	555	1,220	140,879
1886	740	98	2,550	2,434	575	1,100	133,707
1887	800	102	2,400	2,644	610	850	142,069
1888	865	105	2,000	2,765	640	662	136,914
1889	900	104	2,150	2,892	653	563	133,738
1890	910	97	2,600	2,880	648	394	129,442
1891	995	92	2,500	2,800	638	384	123,287
1892	1,015	95	2,100	2,752	630	360	124,788
1893	1,050	102	2,010	2,600	625	343	125,928
1894	1,045	106	2,200	2,350	620	292	102,776
1895	1,040	109	2,250	2,200	600	240	83,328
1896	1,025	106	2,410	2,389	575	290	88,390
1897	1,000	100	3,000	2,800	600	320	103,916
1898	960	100	3,400	3,100	620	300	130,116
1899	975	104	2,900	3,224	625	320	138,526
1900	970	106	2,800	3,526	638	300	161,536
1901	990	106	2,750	3,864	642	260	174,217
1902	970	111	1,985	3,870	645	325	164,999
1903	1,010	118	2,095	4,039	655	240	178,628
1904	1,005	120	2,550	4,014	663	250	168,991
1905	1,010	129	2,600	3,830	660	260	163,556
1906	1,060	135	2,695	3,540	670	255	180,690
1907	1,100	155	3,140	3,272	675	225	211,398
1908	1,125	180	3,600	3,010	685	200	204,130
1909	1,138	195	2,825	3,205	690	220	217,841
1910	1,150	216	2,220	3,000	700	250	251,821
1911	1,190	236	2,775	2,945	675	275	267,750
1912	1,180	245	2,220	2,700	670	280	239,404
1913	1,135	252	2,063	2,730	675	255	270,108
1914	1,148	270	1,870	2,475	675	215	260,014
1915	1,137	297	2,340	3,085	700	210	306,510
1916	1,126	305	2,225	3,300	725	230	314,096
1917	1,120	300	1,890	3,400	750	240	330,941
1918	1,142	280	2,041	3,450	775	275	388,282
1919	1,153	260	2,075	3,500	750	280	391,893
1920	1,083	243	1,733	2,975	695	285	296,683
1921	1,040	279	1,947	3,012	709	274	227,784
1922	1,019	284	2,392	2,991	723	244	173,475
1923	978	305	2,990	3,058	730	176	188,366
1924	958	282	2,747	3,200	737	189	178,466
1925	931	260	2,467	3,068	760	220	183,061
1926	894	242	2,220	2,896	775	246	194,785
1927	840	229	2,109	2,638	775	269	179,393
1928	798	203	2,531	2,731	760	306	204,911
1929	758	185	3,006	2,945	760	352	245,396
1930	728	160	2,826	3,090	780	359	239,871
1931	684	154	2,487	3,250	811	359	171,172
1932	648	144	3,073	3,410	857	370	124,185
1933	628	134	3,165	3,580	890	381	107,305
1934	604	120	2,430	3,860	967	389	108,915
1935	589	104	1,200	3,386	921	385	108,643
1936	548	91	1,248	3,080	828	370	162,689
1937	506	79	874	2,741	755	344	140,869
1938	450	70	804	2,505	709	354	125,801
1939	407	66	1,085	2,600	709	462	144,454
1940	383	63	1,519	2,770	727	527	145,597

LIVESTOCK, 1867-1982—*Concluded*

Year	Horses (thousands)	Mules (thousands)	Hogs * (thousands)	All cattle and calves (thousands)	Milk cows** (thousands)	Stock †† sheep (thousands)	Value of all livestock (thousands)
1941	375	63	1,276	3,186	749	606	$168,911
1942	371	60	1,672	3,568	786	667	233,965
1943	378	54	2,291	4,032	833	687	349,995
1944	367	47	2,474	4,274	841	604	330,139
1945	352	44	1,336	4,231	807	495	304,709
1946	317	35	1,470	3,723	726	406	301,451
1947	279	24	1,176	3,537	697	349	370,673
1948	246	19	1,094	3,325	648	342	438,009
1949	219	16	1,182	3,624	623	311	515,537
1950	195	13	1,253	3,588	604	342	463,662
1951	170	11	1,504	3,911	604	393	691,150
1952	141	10	1,489	4,341	574	440	794,078
1953	113	7	893	4,341	574	387	501,129
1954	99	5	697	4,298	557	387	406,346
1955	87	4	905	4,341	535	395	410,860
1956	80	†	1,041	4,167	508	423	360,800
1957	70	†	916	3,459	483	444	315,838
1958	68	†	953	3,874	447	475	499,779
1959	68	†	1,229	4,300	411	484	697,044
1960	72	†	1,315	4,429	390	494	585,046
1961	†	†	1,249	4,562	374	534	605,095
1962	†	†	1,411	4,973	355	534	695,323
1963	†	†	1,482	5,222	327	502	756,804
1964	†	†	1,452	5,431	301	442	669,625
1965	†	†	1,307	5,214	280	393	578,987
1966	†	†	1,242	5,735	263	401	772,961
1967	†	†	1,503	5,620	250	385	809,727
1968	†	†	1,578	5,564	240	333	810,204
1969	†	†	1,767	5,675	225	286	894,847
1970	†	†	1,643	6,016	204	272	1,089,053
1971	†	†	2,202	6,497	183	253	1,156,544
1972	†	†	2,100	6,757	172	240	1,412,770
1973	†	†	2,100	6,800	162	221	1,756,612
1974	†	†	2,000	6,990	150	290	2,328,550
1975	†	†	1,750	6,400	147	220	969,425
1976	†	†	1,650	6,450	137	165	1,325,333
1977	†	†	1,850	6,400	135	173	1,302,790
1978	†	†	2,000	6,000	132	205	1,450,968
1979	†	†	2,000	6,200	125	220	2,437,630
1980	†	†	2,090	6,200	121	235	2,944,040
1981	†	†	1,900	6,450	123	220	2,748,250
1982	†	†	1,770	6,000	124	200	2,192,210

* Hogs January 1, 1867-1954; Preceding December 1, 1955 to date.
† Horses and mules combined 1956, and discontinued in 1961.
** Milk cows that have calved beginning 1970.
†† All sheep beginning 1974.

WHEAT, 1866-1981

Year	Acres sown (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1866		68	19.0	1,292	$1.33	$1,718,360
1867		89	12.5	1,112	1.32	1,467,840
1868		99	14.5	1,436	1.00	1,436,000
1869		151	16.0	2,416	.63	1,522,080
1870		156	15.5	2,418	.77	1,861,860
1871		169	16.0	2,704	1.02	2,758,080
1872		186	11.5	2,139	1.26	2,695,140
1873		310	14.0	4,340	.92	3,992,800
1874		705	13.7	9,658	.76	7,340,080
1875		735	17.0	12,495	.76	9,496,200
1876		1,000	14.5	14,500	.79	11,455,000
1877		1,021	13.5	13,784	.80	11,027,200
1878		1,705	16.0	27,280	.59	16,095,200
1879		1,861	9.3	17,307	.89	15,403,230
1880		2,340	10.0	23,400	.70	16,380,000
1881		2,180	9.5	20,710	1.05	21,745,500
1882		1,600	20.0	32,000	.67	21,440,000
1883		1,220	17.5	21,350	.78	16,653,000
1884		2,190	18.0	39,420	.45	17,739,000
1885		1,370	10.5	14,385	.65	9,350,250
1886		1,320	11.5	15,180	.58	8,804,400
1887		1,240	9.5	11,780	.61	7,185,800
1888		1,090	15.0	16,350	.88	14,388,000
1889		1,583	19.2	30,394	.55	16,716,700
1890		2,160	15.0	32,400	.77	24,948,000
1891		3,660	16.0	58,560	.73	42,748,800
1892		3,540	18.0	63,720	.52	33,134,400

WHEAT, 1866-1981—*Continued*

Year	Acres sown (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1893		3,490	9.0	31,410	$0.42	$13,192,200
1894		3,860	10.5	40,530	.44	17,833,200
1895		2,390	8.0	19,120	.45	8,604,000
1896		3,130	14.5	45,385	.63	28,592,550
1897		3,050	17.0	51,850	.74	38,369,000
1898		4,580	15.0	68,700	.50	34,350,000
1899		3,804	10.2	38,801	.52	20,176,520
1900		4,290	18.2	78,078	.55	42,942,900
1901		5,260	17.0	89,420	.59	52,757,800
1902		4,300	11.0	47,300	.55	26,015,000
1903		5,850	15.8	92,430	.59	54,533,700
1904		5,100	12.5	63,750	.89	56,737,500
1905		5,580	14.0	78,120	.71	55,465,200
1906		5,810	14.5	84,245	.58	48,862,100
1907		6,880	11.0	75,680	.82	62,057,600
1908		6,770	12.5	84,625	.88	74,470,000
1909	6,488	5,974	13.0	77,451	.98	75,902,000
1910	6,983	4,870	12.4	60,475	.87	52,613,000
1911	7,373	5,300	10.7	56,799	.86	48,847,000
1912	7,867	6,460	14.5	93,695	.80	74,956,000
1913	7,791	7,250	12.0	86,790	.78	67,696,000
1914	9,112	8,650	20.0	172,750	.93	160,658,000
1915	9,493	8,520	12.5	106,478	.97	103,284,000
1916	8,683	8,170	12.0	97,980	1.44	141,091,000
1917	9,608	3,730	11.5	42,785	2.12	90,704,000
1918	10,199	7,250	13.5	97,710	2.00	195,420,000
1919	11,671	11,624	13.2	153,311	2.14	328,086,000
1920	10,559	9,294	15.6	144,933	1.76	255,082,000
1921	11,470	10,554	12.7	133,964	1.03	137,983,000
1922	12,299	9,756	12.8	124,809	.94	117,320,000
1923	11,601	8,299	10.1	83,804	.90	75,424,000
1924	10,226	9,817	16.0	157,022	1.15	180,575,000
1925	10,941	8,755	9.2	80,539	1.48	119,198,000
1926	11,695	10,409	14.8	153,991	1.20	184,789,000
1927	12,750	10,202	11.2	114,216	1.24	141,628,000
1928	12,761	10,639	16.3	173,185	.99	171,453,000
1929	13,142	12,550	12.4	155,563	.99	154,907,000
1930	13,687	13,132	14.2	186,277	.63	117,355,000
1931	13,898	13,623	18.5	251,885	.33	83,122,000
1932	12,963	10,365	11.6	120,178	.33	39,659,000
1933	13,231	7,361	9.1	66,931	.71	47,521,000
1934	12,699	8,610	9.8	84,323	.84	70,831,000
1935	13,456	6,888	9.3	64,055	.89	57,009,000
1936	14,254	10,458	11.5	120,234	1.00	120,234,000
1937	17,110	13,172	12.0	158,052	1.01	159,633,000
1938	16,942	14,494	10.5	152,163	.57	86,733,000
1939	13,703	9,574	12.0	114,858	.66	75,806,000
1940	12,360	8,739	14.5	126,553	.64	80,994,000
1941	13,091	11,799	14.7	173,332	.94	162,932,000
1942	10,861	10,374	19.3	200,101	1.09	218,110,000
1943	10,741	10,159	14.2	144,241	1.37	197,610,000
1944	13,210	11,377	16.5	187,700	1.42	266,534,000
1945	14,148	13,416	15.5	207,939	1.49	309,829,000
1946	14,006	13,147	16.2	212,977	1.91	406,786,000
1947	15,404	14,855	19.3	286,702	2.25	645,080,000
1948	14,634	13,221	17.5	231,368	1.97	455,795,000
1949	16,244	14,279	11.0	157,069	1.89	296,860,000
1950	13,807	12,280	14.5	178,060	2.02	359,681,000
1951	14,773	9,701	13.0	126,113	2.13	268,621,000
1952	15,068	14,649	21.0	307,629	2.14	658,326,000
1953	14,315	11,573	12.5	144,662	2.11	305,237,000
1954	11,738	10,069	17.5	176,208	2.18	384,133,000
1955	10,799	8,559	15.0	128,385	2.06	264,473,000
1956	10,907	9,244	15.5	143,282	2.00	286,564,000
1957	7,199	5,269	19.0	100,111	1.96	196,218,000
1958	10,727	10,433	28.5	297,340	1.78	529,265,000
1959	10,727	10,329	20.5	211,744	1.78	376,904,000
1960	10,727	10,329	28.5	294,376	1.74	512,214,000
1961	10,727	10,329	26.5	273,718	1.79	489,955,000
1962	9,762	8,986	23.5	211,171	2.06	435,012,000
1963	10,641	8,627	21.5	185,480	1.86	344,993,000
1964	10,535	9,490	22.0	208,780	1.37	286,029,000
1965	11,272	10,059	23.5	236,386	1.35	319,121,000
1966	11,047	10,260	19.5	200,070	1.64	328,115,000
1967	13,146	11,081	20.0	221,620	1.35	299,187,000
1968	11,963	9,751	26.0	253,526	1.22	309,302,000
1969	10,767	9,849	31.0	305,319	1.19	363,330,000
1970	9,690	9,061	33.0	299,013	1.25	373,766,000
1971	9,593	9,061	34.5	312,605	1.32	412,639,000
1972	10,300	9,400	33.5	314,900	1.68	529,032,000

WHEAT, 1866-1981—*Concluded*

Year	Acres sown (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1973	10,800	10,400	37.0	384,800	$3.75	$1,443,000,000
1974	12,000	11,600	27.5	319,000	3.86	1,231,340,000
1975	12,800	12,100	29.0	350,900	3.42	1,200,078,000
1976	12,900	11,300	30.0	339,000	2.59	878,010,000
1977	13,200	12,100	28.5	344,850	2.24	772,464,000
1978	11,300	10,000	30.0	300,000	2.89	867,000,000
1979	12,100	10,800	38.0	410,400	3.72	1,526,688,000
1980	13,000	12,000	35.0	420,000	3.78	1,587,600,000
1981	14,000	12,200	25.0	305,000	3.75	1,143,750,000

SORGHUM FOR ALL PURPOSES AND PRODUCTION OF GRAIN, 1929-1981

Year	All purposes		Grain				
	Acres planted (thousands)	Acres harvested (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1929	1,701	1,606	728	15.4	11,203	$0.63	$7,058,000
1930	1,683	1,570	729	10.9	7,982	.42	3,352,000
1931	1,794	1,710	925	15.6	14,672	.27	3,961,000
1932	2,334	2,100	1,008	13.4	13,490	.26	3,507,000
1933	2,755	2,624	1,180	10.5	12,334	.43	5,304,000
1934	3,028	2,065	112	5.0	557	1.08	602,000
1935	3,704	2,830	739	5.9	4,380	.68	2,978,000
1936	2,960	2,070	185	5.0	925	1.04	962,000
1937	2,697	2,230	1,120	9.9	11,033	.46	5,075,000
1938	2,849	2,530	1,103	11.8	13,060	.35	4,571,000
1939	3,157	2,598	853	9.5	8,122	.55	4,467,000
1940	4,607	4,109	1,885	12.8	24,128	.40	9,651,000
1941	3,549	3,313	1,275	17.2	21,885	.53	11,599,000
1942	3,156	2,859	1,173	16.7	19,589	.85	16,651,000
1943	3,488	3,160	1,161	14.5	16,834	1.17	19,696,000
1944	3,846	3,768	2,229	22.1	49,261	.91	44,828,000
1945	3,054	2,879	1,149	15.4	17,695	1.17	20,703,000
1946	2,718	2,505	851	13.5	11,488	1.30	14,934,000
1947	2,256	2,154	754	14.5	10,933	1.96	21,429,000
1948	2,459	2,391	1,339	21.5	28,788	1.30	37,424,000
1949	2,361	2,319	1,392	21.5	29,928	1.18	35,315,000
1950	3,187	3,084	1,943	23.0	44,689	1.07	47,817,000
1951	4,143	3,948	2,605	22.0	57,310	1.32	75,649,000
1952	2,610	2,408	1,324	14.0	18,536	1.45	26,877,000
1953	3,863	3,588	2,009	16.0	32,144	1.27	40,823,000
1954	5,910	5,454	3,567	14.5	51,722	1.25	64,652,000
1955	6,501	5,454	2,891	11.5	33,246	1.01	33,578,000
1956	5,201	3,872	1,626	15.0	24,390	1.22	29,756,000
1957	8,166	7,783	6,071	21.0	127,491	.97	123,666,000
1958	4,981	4,825	3,860	34.0	131,240	.98	128,615,000
1959	5,180	5,066	4,053	34.0	137,802	.77	106,108,000
1960	5,491	5,370	4,296	39.0	167,544	.78	130,684,000
1961	3,734	3,652	2,792	40.0	111,680	.96	107,213,000
1962	3,958	3,908	2,960	43.5	128,760	.96	123,610,000
1963	5,066	4,924	3,789	39.0	147,771	.92	135,949,000
1964	4,306	4,136	3,031	32.5	98,508	1.04	102,448,000
1965	4,048	3,971	3,031	46.0	139,426	.97	135,243,000
1966	3,805	3,733	2,849	49.0	139,601	1.03	143,789,000
1967	4,338	4,218	3,248	46.0	149,408	.94	140,444,000
1968	4,468	4,345	3,475	47.0	163,325	.91	148,626,000
1969	4,066	3,997	3,266	56.0	182,896	.99	181,067,000
1970	4,391	4,277	3,560	41.0	145,960	1.12	163,475,000
1971	5,180	5,102	4,325	54.0	233,550	.95	221,873,000
1972	4,400	4,270	3,500	62.0	217,000	1.39	301,630,000
1973	4,650	4,550	3,900	56.0	218,400	2.13	465,192,000
1974	4,100	3,975	3,320	40.0	132,800	2.69	357,232,000
1975	4,100	3,951	3,500	42.0	147,000	2.27	333,690,000
1976	4,500	4,321	3,750	44.0	165,000	1.86	306,900,000
1977	4,550	4,450	3,800	62.0	235,600	1.74	409,944,000
1978	4,450	4,340	3,860	51.0	196,860	1.99	391,751,000
1979	4,350	4,290	3,570	69.0	246,330	2.20	541,926,000
1980	4,500	4,220	3,480	43.0	149,640	2.91	435,452,000
1981	4,250	4,140	3,560	67.0	238,520	2.16	515,203,000

SORGHUM FOR SILAGE AND FORAGE, 1929-1981

Year	Silage			Forage		
	Acres harvested (thousands)	Yield per acre, tons	Production, tons (thousands)	Acres harvested (thousands)	Yield per acre, tons	Production, tons (thousands)
1929	55	5.9	326	823	2.20	1,811
1930	54	4.9	267	787	1.80	1,416
1931	62	5.4	335	723	1.94	1,404
1932	106	5.8	614	986	1.78	1,753
1933	175	4.2	743	1,269	1.72	2,182
1934	277	2.3	638	1,676	1.35	2,263
1935	283	4.0	1,143	1,808	1.50	2,712
1936	265	3.0	806	1,620	1.10	1,790
1937	217	4.8	1,036	893	1.50	1,338
1938	248	6.4	1,582	1,179	1.83	2,153
1939	278	4.7	1,314	1,466	1.44	2,107
1940	286	6.2	1,773	1,937	1.79	3,467
1941	452	6.9	3,119	1,585	2.14	3,392
1942	325	7.0	2,275	1,359	2.26	3,071
1943	458	5.6	2,565	1,539	1.61	2,478
1944	412	7.0	2,884	1,125	2.13	2,396
1945	342	5.5	1,881	1,386	1.64	2,273
1946	350	6.0	2,100	1,302	1.60	2,083
1947	409	5.3	2,168	989	1.40	1,385
1948	359	7.6	2,728	692	1.90	1,315
1949	278	7.3	2,029	649	1.85	1,201
1950	370	8.5	3,145	771	2.00	1,542
1951	553	7.5	4,148	790	2.10	1,659
1952	409	5.3	2,168	675	1.50	1,012
1953	610	6.0	3,660	969	1.50	1,454
1954	633	5.0	3,165	1,254	1.30	1,630
1955	818	4.2	3,436	1,745	.90	1,570
1956	658	4.5	2,961	1,588	.70	1,112
1957	856	8.1	6,934	856	2.20	1,883
1958	507	9.5	4,816	458	3.00	1,374
1959	532	8.5	4,522	481	2.20	1,058
1960	590	8.9	5,251	484	2.30	1,113
1961	496	10.4	5,158	364	2.60	946
1962	506	11.3	5,718	442	2.90	1,282
1963	582	10.0	5,820	553	2.80	1,548
1964	477	8.7	4,150	628	1.80	1,130
1965	501	10.5	5,260	439	2.80	1,229
1966	441	11.0	4,851	443	2.70	1,196
1967	432	10.0	4,320	538	2.30	1,237
1968	354	10.5	3,717	516	2.30	1,187
1969	269	12.5	3,363	462	3.50	1,617
1970	264	8.0	2,112	453	2.20	997
1971	337	11.0	3,707	440	2.50	1,100
1972	320	13.0	4,160	450	3.20	1,440
1973	300	12.0	3,600	350	3.00	1,050
1974	265	9.6	2,544	390	2.30	897
1975	271	9.0	2,439	180	2.10	378
1976	311	8.5	2,644	260	1.90	494
1977	300	12.5	3,750	350	3.00	1,050
1978	220	10.0	2,200	260	2.80	728
1979	320	12.0	3,840	400	3.40	1,360
1980	295	9.0	2,655	445	2.60	1,173
1981	280	13.5	3,780	300	4.00	1,200

CORN FOR ALL PURPOSES, 1866-1919

Year	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1866	217	28.0	6,076	$0.44	$2,673,440
1867	260	38.5	10,010	.39	3,903,900
1868	340	20.0	6,800	.74	5,032,000
1869	445	38.5	17,132	.35	5,996,200
1870	570	28.0	15,960	.52	8,299,200
1871	860	36.5	31,390	.26	8,161,400
1872	1,160	36.0	41,760	.19	7,934,400
1873	1,371	23.5	32,218	.29	9,343,220
1874	1,740	10.5	18,270	.82	14,981,400
1875	2,206	34.5	76,107	.20	15,221,400
1876	2,105	35.0	73,675	.22	16,208,500
1877	2,926	34.0	99,484	.20	19,896,800

CORN FOR ALL PURPOSES, 1866-1919—*Continued*

Year	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1878	2,745	28.5	78,232	$0.19	$14,864,080
1879	3,418	30.9	105,616	.27	28,516,320
1880	3,726	29.5	109,917	.29	31,875,930
1881	4,200	18.0	75,600	.58	43,848,000
1882	4,662	33.5	156,177	.37	57,785,490
1883	5,129	36.5	187,208	.26	48,674,080
1884	4,960	37.0	183,520	.22	40,374,400
1885	5,456	32.5	177,320	.24	42,556,800
1886	6,301	22.0	138,622	.27	37,427,940
1887	5,666	14.5	82,157	.37	30,398,090
1888	7,566	26.5	200,499	.26	52,129,740
1889	7,319	35.5	259,824	.18	46,768,320
1890	3,807	10.5	39,974	.51	20,386,740
1891	5,386	26.3	142,729	.34	48,527,860
1892	5,791	24.5	141,880	.31	43,982,800
1893	6,391	21.5	137,406	.31	42,595,860
1894	3,576	11.0	39,336	.43	16,914,480
1895	8,400	24.5	205,800	.19	39,102,000
1896	8,008	28.0	224,224	.18	40,360,320
1897	8,408	19.0	159,752	.22	35,145,440
1898	7,315	19.0	138,985	.26	36,136,100
1899	8,266	27.8	229,795	.25	57,448,750
1900	7,472	19.0	141,968	.32	45,429,760
1901	6,836	8.0	54,688	.63	34,453,440
1902	7,140	30.0	214,200	.34	72,828,000
1903	6,707	26.0	174,382	.36	62,777,520
1904	6,707	21.0	140,847	.41	57,747,270
1905	7,042	28.0	197,176	.33	65,068,080
1906	6,849	29.0	197,751	.32	63,280,320
1907	7,087	22.0	155,914	.44	68,602,160
1908	7,386	22.0	162,492	.55	89,370,600
1909	8,109	19.1	154,882	.59	91,380,000
1910	8,950	19.0	170,050	.48	81,624,000
1911	8,157	14.5	118,276	.67	79,245,000
1912	7,575	23.0	174,225	.53	92,339,000
1913	7,320	3.0	21,960	.76	16,690,000
1914	5,850	18.5	108,225	.69	74,675,000
1915	5,550	31.0	172,050	.63	108,392,000
1916	6,950	10.0	69,500	1.09	75,755,000
1917	9,156	13.0	119,028	1.51	179,732,000
1918	6,130	7.0	42,910	1.59	68,227,000
1919	4,370	15.5	67,735	1.49	100,925,000

CORN FOR ALL PURPOSES AND PRODUCTION OF GRAIN, 1919-1981

Year	All purposes		Grain				
	Acres planted (thousands)	Acres harvested (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1919	.....	4,370	3,676	15.5	56,978	$1.49	$84,897,000
1920	.....	5,331	4,607	26.2	120,703	.47	56,730,000
1921	.....	4,638	3,988	22.8	90,926	.43	39,098,000
1922	.....	5,195	4,461	19.0	84,759	.68	57,636,000
1923	.....	5,713	5,022	23.0	115,506	.72	83,164,000
1924	.....	6,056	5,494	21.7	119,220	.96	114,451,000
1925	.....	6,722	5,894	17.6	103,734	.67	69,502,000
1926	5,781	5,781	4,561	12.0	54,732	.75	41,049,000
1927	6,241	6,241	5,736	27.0	154,872	.72	111,508,000
1928	6,988	6,988	6,303	25.0	157,575	.74	116,606,000
1929	6,875	6,643	5,649	18.0	101,682	.72	74,228,000
1930	7,150	6,776	5,399	12.5	67,488	.52	35,094,000
1931	6,863	6,573	5,515	18.0	99,270	.28	27,796,000
1932	7,687	7,362	6,317	19.0	120,023	.27	32,406,000
1933	7,764	6,994	5,548	12.0	66,576	.44	29,293,000
1934	5,174	3,777	172	5.2	894	.97	867,000
1935	5,600	4,380	2,409	9.5	22,886	.73	16,707,000
1936	5,109	2,759	497	6.0	2,982	1.19	3,549,000
1937	2,995	2,456	1,719	13.0	22,347	.56	12,514,000
1938	2,456	2,260	1,944	21.0	40,824	.50	20,412,000
1939	3,316	2,737	2,095	15.2	31,844	.58	18,470,000
1940	3,051	2,647	1,959	17.5	34,282	.58	19,884,000
1941	2,624	2,488	2,314	23.0	53,222	.73	38,852,000
1942	3,201	3,110	2,939	27.0	79,353	.91	72,211,000
1943	3,713	3,514	2,987	23.0	68,701	1.10	75,571,000
1944	3,602	3,549	3,372	27.6	93,067	1.02	94,928,000
1945	3,062	2,981	2,757	23.5	64,790	1.23	79,692,000
1946	3,154	3,011	2,469	22.0	54,318	1.54	83,650,000

CORN FOR ALL PURPOSES AND PRODUCTION OF GRAIN, 1919-1981—*Concluded*

Year	All purposes		Grain				
	Acres planted (thousands)	Acres harvested (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1947	2,460	2,318	1,986	18.0	35,748	$2.21	$79,003,000
1948	2,435	2,364	2,281	32.5	74,132	1.29	95,630,000
1949	2,532	2,459	2,316	27.7	64,153	1.19	76,342,000
1950	2,608	2,557	2,442	35.0	85,470	1.43	122,222,000
1951	2,791	2,429	2,187	24.0	52,488	1.73	90,804,000
1952	2,819	2,720	1,986	22.5	44,685	1.53	68,368,000
1953	2,453	2,366	1,774	22.0	39,028	1.48	57,761,000
1954	2,281	2,082	1,349	24.0	32,376	1.48	47,916,000
1955	1,802	1,624	1,039	24.0	24,936	1.39	34,661,000
1956	1,694	1,527	901	25.0	22,525	1.35	30,409,000
1957	1,575	1,527	1,206	30.0	36,180	1.13	40,883,000
1958	1,780	1,726	1,571	42.0	65,982	1.05	69,281,000
1959	1,976	1,933	1,730	42.0	72,660	1.02	74,113,000
1960	2,016	1,972	1,725	45.5	78,488	.98	76,918,000
1961	1,431	1,400	1,225	48.0	58,800	1.08	63,504,000
1962	1,545	1,512	1,298	51.0	66,198	1.10	72,818,000
1963	1,730	1,693	1,350	46.0	62,100	1.12	69,552,000
1964	1,401	1,371	1,040	45.0	46,800	1.19	55,692,000
1965	1,289	1,261	1,050	59.0	61,950	1.17	72,482,000
1966	1,366	1,324	1,029	58.0	59,682	1.28	76,393,000
1967	1,366	1,324	1,060	68.0	72,080	1.06	76,405,000
1968	1,448	1,417	1,134	78.0	88,452	1.06	93,759,000
1969	1,515	1,470	1,208	79.0	95,432	1.13	107,838,000
1970	1,689	1,637	1,285	64.0	82,240	1.31	107,734,000
1971	1,660	1,627	1,311	95.0	124,545	1.12	139,490,000
1972	1,570	1,540	1,250	104.0	130,000	1.52	197,600,000
1973	1,900	1,860	1,540	100.0	154,000	2.46	378,840,000
1974	2,160	2,100	1,670	79.0	131,930	3.01	397,109,000
1975	1,950	1,910	1,640	86.0	141,040	2.50	352,600,000
1976	2,150	2,105	1,790	96.0	171,840	2.12	364,301,000
1977	2,030	1,985	1,680	96.0	161,280	1.99	320,947,000
1978	1,820	1,783	1,500	102.0	153,000	2.35	359,550,000
1979	1,750	1,720	1,470	117.0	171,990	2.51	431,695,000
1980	1,700	1,627	1,180	94.0	110,920	3.32	368,254,000
1981	1,450	1,433	1,260	126.0	158,760	2.60	412,776,000

CORN FOR SILAGE AND FORAGE, 1925-1981

Year	Silage			Forage
	Acres harvested (thousands)	Yield per acre, tons	Production, tons (thousands)	Acres harvested (thousands)
1925	128	.....	.....	700
1926	220	.....	.....	1,000
1927	106	.....	.....	399
1928	139	.....	.....	552
1929	184	5.0	920	810
1930	414	3.8	1,573	963
1931	348	4.5	1,566	710
1932	250	5.0	1,250	795
1933	454	3.5	1,589	992
1934	945	2.0	1,890	2,660
1935	657	3.0	1,971	1,314
1936	773	1.7	1,314	1,489
1937	246	3.1	763	491
1938	147	3.8	559	169
1939	221	2.9	641	441
1940	265	3.0	795	423
1941	50	4.5	225	124
1942	47	5.5	258	124
1943	105	4.2	441	422
1944	35	5.5	192	142
1945	60	4.5	270	164
1946	211	3.8	802	331
1947	155	3.7	574	177
1948	49	6.0	294	34
1949	86	5.7	490	57
1950	66	6.5	429	49
1951	121	5.1	617	121
1952	490	3.8	1,862	244
1953	379	4.4	1,668	213
1954	481	3.2	1,539	252
1955	390	3.4	1,326	195
1956	458	3.9	1,786	168

CORN FOR SILAGE AND FORAGE, 1925-1981—*Concluded*

Year	Silage			Forage
	Acres harvested (thousands)	Yield per acre, tons	Production, tons (thousands)	Acres harvested (thousands)
1957	283	6.0	1,698	38
1958	129	9.0	1,161	26
1959	180	8.0	1,440	23
1960	227	8.5	1,930	20
1961	157	10.0	1,570	18
1962	201	11.0	2,211	13
1963	312	9.5	2,964	31
1964	309	8.5	2,626	22
1965	198	11.0	2,178	13
1966	273	10.5	2,866	22
1967	240	12.5	3,000	24
1968	271	12.5	3,388	12
1969	252	13.5	3,402	10
1970	343	10.5	3,602	9
1971	313	14.0	4,382	3
1972	280	15.5	4,340	10
1973	305	15.0	4,575	15
1974	416	9.5	3,895	20
1975	260	12.0	3,120	10
1976	300	13.0	3,900	15
1977	290	14.5	4,205	15
1978	273	13.0	3,549	10
1979	245	16.0	3,920	5
1980	404	9.0	3,636	43
1981	170	17.0	2,890	3

SOYBEANS, 1924-1981

Year	Acres planted for all purposes	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1924	11	2	11.0	22	$2.32	$51,000
1925	12	4	10.0	40	2.52	101,000
1926	12	4	10.0	40	2.19	88,000
1927	9	3	12.0	36	1.98	71,000
1928	13	4	11.0	44	1.94	85,000
1929	15	4	9.0	36	2.12	76,000
1930	27	7	7.5	52	1.66	86,000
1931	44	12	9.0	108	.67	72,000
1932	44	11	7.3	80	.77	62,000
1933	55	11	8.5	94	1.14	107,000
1934	48	7	5.0	35	1.39	49,000
1935	38	7	6.5	46	1.10	51,000
1936	39	6	4.0	24	1.57	38,000
1937	28	4	8.0	32	.96	31,000
1938	38	6	10.5	63	.99	62,000
1939	45	11	8.0	88	1.05	92,000
1940	78	26	12.0	312	.96	300,000
1941	83	47	11.5	540	1.58	853,000
1942	290	212	11.5	2,438	1.59	3,876,000
1943	313	244	9.5	2,318	1.80	4,172,000
1944	203	185	13.7	2,534	2.03	5,144,000
1945	258	235	10.0	2,350	2.06	4,841,000
1946	225	198	11.0	2,178	2.53	5,510,000
1947	250	230	8.5	1,955	3.18	6,217,000
1948	198	176	15.0	2,640	2.26	5,966,000
1949	271	257	14.5	3,726	2.07	7,713,000
1950	409	397	18.0	7,146	2.33	16,650,000
1951	495	401	14.5	5,814	2.66	15,465,000
1952	703	640	11.5	7,360	2.65	19,504,000
1953	598	484	7.0	3,388	2.45	8,301,000
1954	425	291	7.0	2,037	2.44	4,970,000
1955	374	335	10.0	3,350	2.11	7,069,000
1956	408	355	8.5	3,018	2.06	6,217,000
1957	241	214	11.5	2,461	1.97	4,848,000
1958	434	421	22.0	9,262	1.86	17,227,000
1959	443	434	21.0	9,114	1.83	16,679,000
1960	594	586	21.5	12,599	1.98	24,946,000
1961	731	703	21.5	15,114	2.17	32,797,000
1962	936	914	17.5	15,995	2.17	34,709,000
1963	852	823	14.5	11,934	2.45	29,238,000
1964	656	642	18.0	11,556	2.51	29,006,000
1965	886	873	21.0	18,333	2.39	43,816,000
1966	930	917	22.5	20,632	2.70	55,706,000
1967	846	825	22.5	18,562	2.42	44,920,000
1968	973	957	25.0	23,925	2.30	55,028,000
1969	866	852	23.0	19,596	2.22	43,503,000

SOYBEANS FOR BEANS, 1924-1981—*Concluded*

Year	Acres planted for all purposes	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1970	990	930	15.0	13,950	$2.74	$38,223,000
1971	880	871	20.5	17,856	2.99	53,389,000
1972	900	875	28.0	24,500	4.10	100,450,000
1973	1,240	1,200	22.0	26,400	5.67	149,688,000
1974	1,030	990	20.0	19,800	6.34	125,532,000
1975	1,100	1,080	21.0	22,680	4.77	108,184,000
1976	900	865	15.0	12,975	6.52	84,597,000
1977	1,020	990	28.5	28,215	5.50	155,183,000
1978	1,520	1,490	18.0	26,820	6.64	178,085,000
1979	1,580	1,560	26.5	41,340	5.97	246,800,000
1980	1,550	1,450	16.5	23,925	7.55	180,634,000
1981	1,540	1,510	30.0	45,300	5.90	267,270,000

OATS, 1866-1981

Year	Acres sown (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1866		55	36.0	1,980	$0.33	$653,400
1867		60	33.0	1,980	.35	693,000
1868		80	30.0	2,400	.42	1,008,000
1869		110	37.5	4,125	.29	1,196,250
1870		145	29.5	4,278	.36	1,540,080
1871		175	31.5	5,512	.27	1,488,240
1872		235	32.5	7,638	.19	1,451,220
1873		285	30.0	8,550	.21	1,795,500
1874		315	20.0	6,300	.48	3,024,000
1875		290	28.5	8,265	.21	1,735,650
1876		390	27.0	10,530	.20	2,106,000
1877		310	33.5	10,385	.18	1,869,300
1878		405	32.0	12,960	.17	2,203,200
1879		436	23.5	10,246	.26	2,663,960
1880		390	22.0	8,580	.32	2,745,600
1881		440	29.0	12,760	.40	5,104,000
1882		475	35.0	16,625	.30	4,987,500
1883		700	39.0	27,300	.21	5,733,000
1884		780	35.0	27,300	.22	6,006,000
1885		875	31.5	27,562	.23	6,339,260
1886		990	30.0	29,700	.25	7,425,000
1887		1,290	31.5	40,635	.29	11,784,150
1888		1,440	33.5	48,240	.22	10,612,800
1889		1,490	30.5	45,445	.15	6,816,750
1890		1,230	24.0	29,520	.38	11,217,600
1891		1,300	32.5	42,250	.27	11,407,500
1892		1,560	28.5	44,460	.26	11,559,600
1893		1,590	18.5	29,415	.27	7,942,050
1894		1,440	18.0	25,920	.31	8,035,200
1895		1,610	20.0	32,200	.17	5,474,000
1896		1,480	13.0	19,240	.16	3,078,400
1897		980	24.0	23,520	.18	4,233,600
1898		1,060	20.5	21,730	.22	4,780,600
1899		940	27.2	25,568	.22	5,624,960
1900		1,060	31.5	33,390	.23	7,679,700
1901		1,170	17.5	20,475	.43	8,804,250
1902		1,020	32.5	33,150	.30	9,945,000
1903		1,230	25.0	30,750	.30	9,225,000
1904		1,260	18.0	22,680	.33	7,484,400
1905		1,130	27.0	30,510	.28	8,542,800
1906		1,190	23.5	27,965	.31	8,669,150
1907		1,110	15.0	16,650	.42	6,993,000
1908		830	20.0	16,600	.45	7,470,000
1909		933	24.6	22,952	.46	10,558,000
1910		1,650	33.0	54,450	.36	19,602,000
1911		2,060	15.0	30,900	.43	13,287,000
1912		1,510	31.0	46,810	.39	18,256,000
1913		1,600	19.5	31,200	.44	13,728,000
1914		1,460	31.0	45,260	.42	19,009,000
1915		1,400	26.0	36,400	.43	15,652,000
1916		1,460	23.0	33,580	.52	17,462,000
1917		2,150	31.0	66,650	.73	48,654,000
1918		2,175	22.0	47,850	.73	34,930,000
1919		1,420	25.6	36,352	.79	28,718,000
1920		1,846	28.0	51,688	.58	29,979,000
1921		1,698	19.1	32,432	.32	10,378,000
1922		1,358	16.5	22,407	.41	9,187,000

OATS, 1866-1981—*Concluded*

Year	Acres sown (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1923	.....	1,222	22.3	27,251	$0.47	$12,808,000
1924	.....	1,415	23.0	32,545	.53	17,249,000
1925	.....	1,627	20.5	33,354	.45	15,009,000
1926	1,546	1,546	18.5	28,601	.43	12,298,000
1927	1,267	1,267	20.5	25,974	.47	12,208,000
1928	1,292	1,292	25.4	32,817	.43	14,111,000
1929	1,170	1,150	21.0	24,150	.45	10,868,000
1930	1,404	1,357	28.0	37,996	.35	12,919,000
1931	1,607	1,561	29.0	45,269	.19	8,601,000
1932	1,703	1,577	24.0	37,848	.16	6,056,000
1933	1,737	1,528	19.0	29,032	.33	9,581,000
1934	1,495	1,272	16.0	20,352	.49	9,972,000
1935	1,694	1,540	29.0	44,660	.32	14,291,000
1936	2,016	1,679	21.0	35,259	.47	16,572,000
1937	1,568	1,414	26.0	36,764	.37	13,603,000
1938	1,615	1,471	26.0	38,246	.23	8,797,000
1939	1,663	1,267	18.6	23,566	.35	8,248,000
1940	1,630	1,495	31.0	46,345	.30	13,904,000
1941	1,728	1,619	24.0	38,856	.36	13,988,000
1942	1,970	1,813	25.5	46,232	.48	22,191,000
1943	2,147	1,976	24.0	47,424	.71	33,671,000
1944	1,825	1,561	16.2	25,288	.73	18,460,000
1945	1,278	968	17.5	16,940	.71	12,027,000
1946	1,495	1,423	28.5	40,556	.82	33,256,000
1947	1,510	1,395	29.0	40,455	1.04	42,073,000
1948	1,616	1,144	22.0	25,168	.80	20,134,000
1949	1,034	858	19.4	16,645	.71	11,818,000
1950	1,520	901	21.0	18,921	.86	16,272,000
1951	1,186	748	18.0	13,464	.93	12,522,000
1952	996	838	20.5	17,179	.89	15,289,000
1953	1,235	989	21.5	21,264	.78	16,586,000
1954	1,235	1,080	33.0	35,640	.74	26,374,000
1955	1,383	1,123	27.5	30,882	.64	19,764,000
1956	1,383	1,078	21.5	23,177	.73	16,919,000
1957	1,397	1,121	30.5	34,190	.60	20,514,000
1958	685	516	26.0	13,416	.62	8,318,000
1959	843	681	24.0	16,344	.67	10,950,000
1960	514	422	34.0	14,348	.64	9,183,000
1961	658	549	31.0	17,019	.67	11,403,000
1962	520	351	22.5	7,898	.71	5,608,000
1963	426	344	30.0	10,320	.73	7,534,000
1964	405	316	29.0	9,164	.71	6,506,000
1965	259	205	32.0	6,560	.72	4,723,000
1966	280	215	28.0	6,020	.76	4,575,000
1967	218	161	36.0	5,796	.76	4,405,000
1968	222	180	38.0	6,840	.73	4,993,000
1969	159	126	39.0	4,914	.71	3,489,000
1970	215	183	42.0	7,686	.72	5,534,000
1971	220	165	45.0	7,425	.72	5,346,000
1972	195	145	44.0	6,380	.82	5,232,000
1973	120	86	40.0	3,440	1.30	4,472,000
1974	210	168	33.0	5,544	1.63	9,037,000
1975	140	109	40.0	4,360	1.62	7,063,000
1976	250	200	42.0	8,400	1.55	13,020,000
1977	285	210	45.0	9,450	1.10	10,395,000
1978	150	105	39.0	4,095	1.40	5,733,000
1979	135	85	44.0	3,740	1.65	6,171,000
1980	175	120	38.0	4,560	1.95	8,892,000
1981	240	170	50.0	8,500	1.95	16,575,000

BARLEY, 1866-1981

Year	Acres sown (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1866		2	23.0	46	$0.91	$42,000
1867		2	21.0	42	1.08	45,000
1868		4	22.0	88	.99	87,000
1869		4	23.5	94	.82	77,000
1870		4	17.5	70	.74	52,000
1871		5	20.5	102	.69	70,000
1872		8	21.5	172	.59	101,000
1873		12	19.5	234	.70	164,000
1874		14	17.0	238	.79	188,000
1875		19	12.0	228	.57	130,000
1876		27	18.0	486	.44	214,000
1877		26	21.5	559	.33	184,000
1878		27	20.5	554	.31	172,000
1879		24	12.6	302	.43	130,000
1880		17	7.0	119	.54	64,000
1881		6	14.0	84	.75	63,000
1882		9	24.5	220	.53	117,000
1883		16	21.5	344	.40	138,000
1884		21	26.5	556	.33	183,000
1885		22	18.0	396	.34	135,000
1886		24	18.0	432	.36	156,000
1887		21	11.0	231	.43	99,000
1888		6	26.5	159	.53	84,000
1889		7	23.0	161	.32	52,000
1890		18	22.0	396	.57	226,000
1891		26	27.0	702	.40	281,000
1892		44	23.5	1,034	.35	362,000
1893		67	7.0	469	.47	220,000
1894		37	6.0	222	.49	109,000
1895		49	11.5	564	.23	130,000
1896		62	6.5	403	.22	89,000
1897		75	16.0	1,200	.25	300,000
1898		90	22.5	2,025	.27	547,000
1899		119	12.4	1,476	.27	399,000
1900		127	18.0	2,286	.33	754,000
1901		138	8.5	1,173	.45	528,000
1902		139	14.5	2,016	.38	766,000
1903		138	24.0	3,312	.34	1,126,000
1904		150	14.0	2,100	.37	777,000
1905		225	18.0	4,050	.32	1,296,000
1906		218	13.5	2,943	.33	971,000
1907		190	5.0	950	.54	513,000
1908		170	10.0	1,700	.58	986,000
1909		166	13.4	2,224	.54	1,201,000
1910		230	13.0	2,990	.47	1,405,000
1911		220	7.0	1,540	.58	893,000
1912		146	20.0	2,920	.42	1,226,000
1913		232	7.0	1,624	.54	877,000
1914		221	20.0	4,420	.51	2,254,000
1915		240	24.5	5,880	.45	2,646,000
1916		250	12.0	3,000	.69	2,070,000
1917		500	7.0	3,500	1.22	4,270,000
1918		385	9.0	3,465	.99	3,430,000
1919		425	21.0	8,925	1.03	9,193,000
1920		599	20.5	12,280	.60	7,368,000
1921		570	15.5	8,835	.36	3,181,000
1922		627	14.4	9,029	.42	3,792,000
1923		614	18.0	11,052	.49	5,415,000
1924		583	13.0	7,579	.64	4,851,000
1925		496	10.5	5,208	.62	3,229,000
1926	347	347	9.8	3,401	.63	2,143,000
1927	452	452	12.0	5,424	.61	3,309,000
1928	633	633	21.0	13,293	.50	6,646,000
1929	612	582	16.5	9,603	.48	4,609,000
1930	502	456	20.5	9,553	.42	4,012,000
1931	562	513	16.0	8,208	.22	1,806,000
1932	731	586	14.0	8,204	.15	1,231,000
1933	936	282	8.5	2,397	.39	935,000
1934	537	145	8.2	1,189	.64	761,000
1935	433	260	14.0	3,640	.51	1,856,000
1936	528	364	11.0	4,004	.67	2,683,000
1937	514	298	11.5	3,427	0.56	1,919,000
1938	452	393	17.0	6,681	.31	2,071,000

BARLEY, 1866-1981—*Concluded*

Year	Acres sown (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1939	1,160	647	11.0	7,117	$0.41	$2,918,000
1940	1,308	1,136	17.0	19,312	.35	6,759,000
1941	1,478	1,326	21.0	27,846	.44	12,252,000
1942	1,788	1,233	13.5	16,646	.58	9,655,000
1943	1,538	1,110	14.0	15,540	.95	14,763,000
1944	1,031	722	17.8	12,852	.98	12,595,000
1945	480	383	18.5	7,086	.97	6,873,000
1946	360	287	17.5	5,022	1.25	6,278,000
1947	328	290	22.0	6,380	1.51	9,634,000
1948	459	362	19.0	6,878	1.15	7,910,000
1949	266	221	17.5	3,868	.94	3,636,000
1950	636	254	14.5	3,683	1.14	4,199,000
1951	343	119	13.0	1,547	1.25	1,934,000
1952	120	86	15.5	1,333	1.29	1,720,000
1953	167	112	14.0	1,568	1.15	1,803,000
1954	551	459	22.5	10,328	1.03	10,638,000
1955	937	688	18.5	12,728	.89	11,328,000
1956	806	578	18.0	10,404	.93	9,676,000
1957	846	688	22.0	15,136	.84	12,714,000
1958	812	674	27.5	18,535	.81	15,013,000
1959	999	890	26.0	23,140	.70	16,198,000
1960	1,077	730	26.0	18,980	.71	13,476,000
1961	991	840	31.0	26,040	.86	22,394,000
1962	1,041	689	19.0	13,091	.86	11,258,000
1963	708	276	18.0	4,968	.87	4,322,000
1964	581	406	25.0	10,150	.85	8,628,000
1965	232	138	26.5	3,657	.91	3,328,000
1966	220	182	25.0	4,550	.97	4,414,000
1967	119	80	27.0	2,160	.98	2,117,000
1968	125	100	37.0	3,700	.91	3,367,000
1969	200	170	37.0	6,290	.82	5,158,000
1970	215	187	37.0	6,919	.85	5,881,000
1971	205	175	42.0	7,350	.97	7,130,000
1972	110	94	46.0	4,324	1.01	4,367,000
1973	80	70	43.0	3,010	1.64	4,936,000
1974	55	45	34.0	1,530	2.06	3,152,000
1975	55	50	37.0	1,850	2.02	3,737,000
1976	75	62	35.0	2,170	2.00	4,340,000
1977	85	73	36.0	2,628	1.51	3,968,000
1978	66	55	42.0	2,310	1.70	3,927,000
1979	66	52	44.0	2,288	2.13	4,873,000
1980	60	51	41.0	2,091	2.30	4,809,000
1981	63	52	32.0	1,664	2.35	3,910,000

RYE, 1869-1981

Year	Acres sown (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1869		1	14.5	14	$0.68	$10,000
1870		4	15.0	60	.69	41,000
1871		5	15.0	75	.66	50,000
1872		5	15.0	75	.71	53,000
1873		21	15.0	315	.57	180,000
1874		24	13.0	312	.65	203,000
1875		64	13.0	832	.50	416,000
1876		125	13.5	1,688	.42	709,000
1877		90	14.0	1,260	.36	454,000
1878		96	13.5	1,296	.31	401,760
1879		35	11.9	416	.51	212,160
1880		37	10.0	370	.49	181,300
1881		38	11.5	437	.74	323,380
1882		125	16.0	2,000	.40	800,000
1883		180	15.0	2,700	.37	999,000
1884		180	15.0	2,700	.35	945,000
1885		115	12.0	1,380	.40	552,000
1886		100	13.0	1,300	.41	533,000
1887		90	8.0	720	.44	316,800
1888		115	13.0	1,495	.46	687,700
1889		199	14.6	2,905	.26	755,300
1890		120	13.0	1,560	.55	858,000
1891		135	14.5	1,958	.64	1,253,120
1892		135	14.0	1,890	.40	756,000
1893		120	6.5	780	.38	296,400
1894		80	8.0	640	.46	294,400
1895		108	8.5	918	.38	348,840
1896		65	10.0	650	.35	227,500
1897		70	12.5	875	.40	350,000

RYE, 1869-1981—*Concluded*

Year	Acres sown (thousands)	Acres harvested (thousands)	Yield, bushels	Production, bushels (thousands)	Price per bushel	Farm value
1898		83	13.0	1,079	$0.37	$399,230
1899		81	10.0	810	.42	340,200
1900		71	14.0	994	.43	427,420
1901		75	13.0	975	.55	536,250
1902		75	11.0	825	.45	371,250
1903		70	13.0	910	.44	400,400
1904		57	10.0	570	.65	370,500
1905		43	12.0	516	.54	278,640
1906		26	12.0	312	.50	156,000
1907		20	8.0	160	.66	105,600
1908		20	9.0	180	.73	131,000
1909		17	9.3	158	.74	117,000
1910		20	8.5	170	.72	122,000
1911		18	5.5	99	.80	79,000
1912		30	12.0	360	.73	263,000
1913		45	9.5	428	.70	300,000
1914		50	14.5	725	.79	573,000
1915		50	12.0	600	.80	480,000
1916		60	10.0	600	1.00	600,000
1917		110	11.0	1,210	1.79	2,166,000
1918		175	12.0	2,100	1.62	3,402,000
1919		190	10.5	1,995	1.50	2,992,000
1920		95	12.5	1,188	1.39	1,651,000
1921		78	9.5	741	.79	585,000
1922		54	11.0	594	.69	410,000
1923		34	8.5	289	.70	202,000
1924		33	11.1	366	.93	340,000
1925		35	9.5	332	.94	312,000
1926		33	10.7	353	.89	314,000
1927		39	10.7	417	.93	388,000
1928		20	12.0	240	.80	192,000
1929		14	10.5	147	.84	123,000
1930	50	18	10.5	189	.56	106,000
1931	67	25	12.0	300	.32	96,000
1932	53	19	11.0	209	.25	52,000
1933	48	16	9.0	144	.59	85,000
1934	61	20	9.8	196	.76	149,000
1935	167	60	10.5	630	.53	334,000
1936	144	58	10.5	609	.85	518,000
1937	187	84	11.5	966	.70	676,000
1938	145	65	11.0	715	.37	265,000
1939	152	65	10.5	682	.45	307,000
1940	147	64	10.5	672	.40	269,000
1941	198	89	11.0	979	.55	538,000
1942	230	117	11.0	1,287	.59	759,000
1943	239	129	10.5	1,354	.97	1,313,000
1944	225	101	10.5	1,060	1.00	1,060,000
1945	207	81	10.5	850	1.19	1,012,000
1946	120	53	10.5	556	1.80	1,001,000
1947	136	57	11.0	627	2.20	1,379,000
1948	90	34	11.5	391	1.51	590,000
1949	65	28	9.7	272	1.12	305,000
1950	102	42	10.0	420	1.26	529,000
1951	87	30	9.5	285	1.55	442,000
1952	92	42	11.0	462	1.71	790,000
1953	100	38	9.5	361	1.32	477,000
1954	200	85	11.5	978	1.08	1,056,000
1955	264	69	10.0	690	.98	676,000
1956	280	66	11.5	759	1.04	789,000
1957	361	160	16.0	2,560	1.01	2,586,000
1958	365	168	17.5	2,940	.93	2,734,000
1959	321	143	15.0	2,145	.85	1,823,000
1960	321	140	18.0	2,520	.80	2,016,000
1961	279	108	17.0	1,836	.89	1,634,000
1962	399	179	15.5	2,774	.90	2,497,000
1963	335	124	12.5	1,550	.94	1,457,000
1964	362	130	15.5	2,015	.93	1,874,000
1965	221	60	16.5	990	.90	891,000
1966	203	57	15.0	855	.96	821,000
1967	126	30	13.5	405	.95	385,000
1968	94	33	15.5	512	.93	476,000
1969	169	59	19.0	1,121	.88	986,000
1970	210	86	22.0	1,892	.89	1,684,000
1971	270	120	22.0	2,640	.86	2,270,000
1972	155	25	20.0	500	.92	460,000
1973	155	35	21.0	735	1.46	1,073,000
1974	80	14	19.0	266	2.03	540,000
1975	50	8	21.0	168	2.16	363,000
1976	50	8	17.0	136	2.10	286,000
1977	60	10	18.0	180	1.55	279,000
1978	90	15	21.0	315	1.80	567,000
1979	85	18	28.0	504	1.90	958,000
1980	60	10	21.0	210	2.40	504,000
1981	75	12	21.0	252	2.70	680,000

ALL HAY, 1909-1981

Year	Acres harvested (thousands)	Yield per acre, tons	Production, tons (thousands)	Price per ton	Farm value
1909	3,304	1.44	4,756	$6.50	$30,914,000
1910	3,235	1.16	3,743	7.40	27,698,000
1911	2,985	.71	2,113	11.00	23,243,000
1912	3,170	1.36	4,307	7.90	34,025,000
1913	2,705	.90	2,433	11.20	27,250,000
1914	2,855	1.28	3,642	8.30	30,229,000
1915	3,040	1.58	4,798	5.90	28,308,000
1916	2,930	1.39	4,084	7.70	31,447,000
1917	2,920	1.15	3,356	14.90	50,004,000
1918	2,990	.98	2,922	18.80	54,934,000
1919	2,945	1.47	4,340	15.40	66,836,000
1920	2,876	1.30	3,730	11.80	44,014,000
1921	2,667	1.27	3,378	6.90	23,308,000
1922	2,557	1.31	3,352	7.80	26,146,000
1923	2,525	1.40	3,530	8.80	31,064,000
1924	2,578	1.34	3,447	8.80	30,334,000
1925	2,467	1.23	3,041	8.60	26,153,000
1926	2,265	1.02	2,321	11.00	25,531,000
1927	2,388	1.67	3,996	8.00	31,968,000
1928	2,139	1.57	3,357	6.80	22,828,000
1929	1,961	1.38	2,698	7.70	20,775,000
1930	1,900	1.20	2,288	7.30	16,702,000
1931	1,983	1.16	2,309	5.10	11,776,000
1932	2,029	1.36	2,760	4.15	11,454,000
1933	1,880	1.10	2,062	5.40	11,135,000
1934	1,644	.69	1,135	11.70	13,280,000
1935	1,924	1.35	2,590	6.40	16,576,000
1936	1,698	.78	1,320	11.30	14,916,000
1937	1,409	.99	1,388	8.00	11,104,000
1938	1,305	1.37	1,782	4.75	8,464,000
1939	1,182	1.20	1,423	7.00	9,961,000
1940	1,358	1.35	1,829	6.60	12,071,000
1941	1,455	1.60	2,325	8.30	19,298,000
1942	1,659	1.77	2,944	9.40	27,674,000
1943	1,743	1.53	2,667	15.20	40,538,000
1944	1,784	1.67	2,982	14.30	42,643,000
1945	1,783	1.61	2,875	14.00	40,250,000
1946	1,746	1.35	2,354	18.70	44,020,000
1947	2,059	1.53	3,155	19.70	62,154,000
1948 [1]	1,953	1.78	3,479	17.90	62,274,000
1949	2,057	1.59	3,269	15.50	50,670,000
1950	2,065	1.63	3,366	18.20	61,261,000
1951	2,189	1.62	3,548	23.70	84,088,000
1952	2,008	1.18	2,369	31.40	74,387,000
1953	2,297	1.18	2,719	25.60	69,606,000
1954	2,534	1.34	3,397	23.00	78,131,000
1955	2,548	1.35	3,449	20.30	70,015,000
1956	2,275	1.07	2,433	25.40	61,798,000
1957	2,389	1.80	4,310	15.40	66,374,000
1958	2,139	2.13	4,552	11.60	52,803,000
1959	1,913	1.85	3,534	16.30	57,604,000
1960	2,087	2.01	4,193	17.70	74,216,000
1961	2,134	2.01	4,297	17.20	73,908,000
1962	2,314	2.03	4,694	18.20	85,431,000
1963	2,279	1.65	3,755	22.60	84,863,000
1964	2,480	1.75	4,341	21.80	94,634,000
1965	2,587	2.13	5,523	18.20	100,519,000
1966	2,555	1.60	4,077	23.50	95,810,000
1967	2,465	2.14	5,282	20.50	108,281,000
1968	2,403	1.96	4,721	21.00	99,141,000
1969	2,387	2.14	5,113	21.00	107,373,000
1970	2,384	1.72	4,102	24.50	100,499,000
1971	2,477	2.12	5,255	24.00	126,120,000
1972	2,370	2.34	5,549	26.50	147,049,000
1973	2,450	2.37	5,796	38.50	223,146,000
1974	2,320	1.82	4,229	46.00	194,534,000
1975	2,280	2.14	4,890	48.00	234,720,000
1976	2,275	2.06	4,685	53.00	248,305,000
1977	2,290	2.38	5,445	43.00	234,135,000
1978	2,300	2.05	4,720	45.00	212,400,000
1979	2,300	2.54	5,840	48.50	283,240,000
1980	2,125	1.93	4,102	62.00	254,324,000
1981	2,300	2.64	6,070	57.00	345,990,000

1. Baled basis beginning 1948, loose basis previous years.

ALFALFA HAY AND TAME HAY OTHER THAN ALFALFA, 1919-1981

Year	Alfalfa Hay			Tame Hay Other Than Alfalfa		
	Acres harvested (thousands)	Yield per acre, tons	Production, tons (thousands)	Acres harvested (thousands)	Yield per acre, tons	Production, tons (thousands)
1919	1,316	1.90	2,500	406	1.34	544
1920	1,303	1.60	2,085	436	1.43	622
1921	1,134	1.50	1,701	441	1.35	596
1922	1,021	1.65	1,685	510	1.30	662
1923	980	1.80	1,764	498	1.38	688
1924	981	1.80	1,766	594	1.19	708
1925	970	1.75	1,698	584	1.13	658
1926	931	1.50	1,396	458	.87	399
1927	968	2.30	2,226	456	1.34	613
1928	823	2.20	1,811	419	1.23	514
1929	730	1.85	1,350	312	1.23	383
1930	642	1.80	1,156	357	1.15	411
1931	719	1.55	1,114	345	1.20	414
1932	719	1.90	1,366	363	1.23	447
1933	705	1.60	1,128	398	1.02	406
1934	749	.86	644	273	.55	149
1935	854	1.75	1,494	292	1.09	318
1936	777	1.00	777	299	.67	201
1937	559	1.15	643	259	.94	243
1938	394	1.70	670	261	1.27	332
1939	380	1.60	608	217	1.06	230
1940	490	1.90	931	283	1.21	342
1941	642	2.15	1,380	240	1.31	315
1942	802	2.30	1,845	267	1.35	361
1943	810	1.95	1,580	260	1.20	313
1944	827	2.26	1,869	264	1.30	344
1945	852	2.10	1,789	293	1.20	352
1946	826	1.90	1,569	282	1.09	307
1947	1,016	1.95	1,981	341	1.18	402
1948	1,036	2.25	2,331	306	1.25	384
1949	1,026	2.00	2,052	389	1.23	479
1950	995	2.10	2,090	428	1.26	538
1951	985	2.15	2,118	511	1.24	633
1952	906	1.60	1,450	416	1.06	439
1953	1,114	1.55	1,727	531	.95	503
1954	1,437	1.65	2,371	393	1.09	428
1955	1,538	1.60	2,461	390	1.10	430
1956	1,338	1.25	1,672	367	.83	305
1957	1,378	2.15	2,963	384	1.47	563
1958	1,295	2.55	3,302	305	1.62	495
1959	1,049	2.30	2,413	268	1.40	376
1960	1,080	2.60	2,808	316	1.54	487
1961	1,112	2.65	2,947	331	1.57	521
1962	1,201	2.75	3,303	387	1.44	556
1963	1,201	2.20	2,642	352	1.31	460
1964	1,261	2.30	2,900	413	1.34	554
1965	1,299	2.85	3,702	498	1.67	833
1966	1,273	2.05	2,610	547	1.41	769
1967	1,248	2.85	3,557	460	1.61	741
1968	1,148	2.60	2,985	506	1.58	800
1969	1,125	2.90	3,263	543	1.69	915
1970	1,125	2.30	2,588	518	1.42	736
1971	1,180	2.75	3,245	556	1.95	1,084
1972	1,170	3.05	3,569	550	2.30	1,265
1973	1,210	3.15	3,812	580	2.17	1,258
1974	1,070	2.55	2,729	420	1.60	670
1975	980	3.00	2,940	450	2.07	930
1976	1,000	2.90	2,900	425	1.80	765
1977	1,010	3.30	3,333	470	2.17	1,018
1978	1,000	2.90	2,900		Discontinued	
1979	1,000	3.50	3,500			
1980	975	2.85	2,779			
1981	1,000	3.60	3,600			

WILD HAY, 1909-1977

Year	Acres harvested (thousands)	Yield per acre, tons	Production, tons (thousands)	Year	Acres harvested (thousands)	Yield per acre, tons	Production, tons (thousands)
1909	1,608	1.08	1,737	1944	693	1.11	769
1910	1,585	.80	1,268	1945	638	1.15	734
1911	1,435	.50	718	1946	638	.75	478
1912	1,540	1.05	1,617	1947	702	1.10	772
1913	1,205	.65	783	1948	611	1.25	764
1914	1,205	.90	1,084	1949	642	1.15	738
1915	1,270	1.20	1,524	1950	642	1.15	738
1916	1,250	1.05	1,312	1951	693	1.15	797
1917	1,220	.80	976	1952	686	.70	480
1918	1,210	.65	786	1953	652	.75	489
1919	1,223	1.06	1,296	1954	704	.85	589
1920	1,137	.90	1,023	1955	620	.90	558
1921	1,092	.99	1,081	1956	570	.80	456
1922	1,026	.98	1,005	1957	627	1.25	784
1923	1,047	1.03	1,078	1958	539	1.40	755
1924	1,003	.97	973	1959	596	1.25	745
1925	913	.75	685	1960	691	1.30	898
1926	876	.60	526	1961	691	1.20	829
1927	964	1.20	1,157	1962	726	1.15	835
1928	897	1.15	1,032	1963	726	.90	653
1929	919	1.05	965	1964	806	1.10	887
1930	901	.80	721	1965	790	1.25	988
1931	919	.85	781	1966	735	.95	698
1932	947	1.09	947	1967	757	1.30	984
1933	777	.68	528	1968	749	1.25	936
1934	622	.55	342	1969	719	1.30	935
1935	778	1.00	778	1970	741	1.05	778
1936	622	.55	342	1971	741	1.25	926
1937	591	.85	502	1972	650	1.10	715
1938	650	1.20	780	1973	660	1.10	726
1939	585	1.00	585	1974	830	1.00	830
1940	585	.95	556	1975	850	1.20	1,020
1941	573	1.10	630	1976	850	1.20	1,020
1942	590	1.25	738	1977	810	1.35	1,094
1943	673	1.15	774	Discontinued After 1977 Crop Year			

ALL OTHER HAY[1], 1964-1981

Year	Acres harvested (thousands)	Yield per acre, tons	Production, tons (thousands)	Year	Acres harvested (thousands)	Yield per acre, tons	Production, tons (thousands)
1964	1,219	1.18	1,441	1973	1,240	1.60	1,984
1965	1,288	1.41	1,821	1974	1,250	1.20	1,500
1966	1,282	1.14	1,467	1975	1,300	1.50	1,950
1967	1,217	1.42	1,725	1976	1,275	1.40	1,785
1968	1,255	1.38	1,736	1977	1,280	1.65	2,112
1969	1,262	1.47	1,850	1978	1,300	1.40	1,820
1970	1,259	1.20	1,514	1979	1,300	1.80	2,340
1971	1,297	1.55	2,010	1980	1,150	1.15	1,323
1972	1,200	1.65	1,980	1981	1,300	1.90	2,470

1. All types except alfalfa.

SEED CROPS, 1919-1981

Year	Alfalfa Seed				Sweet Clover Seed			
	Acres harvested	Yield per acre, pounds	Production, lbs. (thousands)	Farm value (thousands)	Acres harvested	Yield per acre, pounds	Production, lbs. (thousands)	Farm value (thousands)
1919	13,000	89	1,157	$301				
1920	45,000	94	4,230	673				
1921	28,000	84	2,352	282				
1922	30,000	73	2,190	304				
1923	15,000	57	855	135				
1924	69,000	94	6,486	1,044	26,000	155	4,030	$391
1925	67,000	89	5,963	900	43,000	150	6,450	458
1926	60,000	99	5,940	855	37,000	165	6,105	507
1927	13,000	78	1,014	150	49,000	150	7,350	419
1928	12,000	89	1,068	189	24,000	150	3,600	191
1929	47,000	94	4,418	764	22,000	140	3,080	163
1930	71,000	115	8,165	1,200	27,000	140	3,780	208
1931	61,000	94	5,734	528	21,000	135	2,835	111
1932	42,000	73	3,066	239	27,000	125	3,375	88
1933	78,000	120	9,360	758	19,000	140	2,660	94
1934	97,000	94	9,118	1,213	15,000	105	1,575	99
1935	73,000	94	6,862	817	13,000	125	1,625	61
1936	40,000	84	3,360	615	9,000	105	945	76
1937	43,000	89	3,827	880	10,000	155	1,550	113
1938	84,000	73	6,132	1,153	30,000	150	4,500	189
1939	113,000	70	7,900	1,422	37,000	145	5,400	247
1940	110,000	70	7,700	1,194	42,000	140	5,900	255
1941	123,000	59	7,300	1,350	42,000	140	5,900	280
1942	120,000	68	8,200	2,034	32,000	135	4,300	251
1943	166,000	84	13,900	4,559	37,000	140	5,200	477
1944	136,000	54	7,300	2,387	40,000	150	6,000	600
1945	178,000	65	11,600	3,770	37,000	145	5,400	540
1946	299,000	93	27,800	9,396	52,000	130	6,800	694
1947	218,000	84	18,300	4,081	64,000	150	9,600	979
1948	100,000	75	7,500	3,090	43,000	130	5,600	823
1949	121,000	80	9,700	4,093	64,000	115	7,400	1,095
1950	44,000	52	2,300	1,104	80,000	125	10,000	1,250
1951	48,000	60	2,900	1,696	30,000	94	2,800	291
1952	250,000	110	27,500	8,662	34,000	90	3,060	294
1953	130,000	95	12,350	2,779	29,000	120	3,480	306
1954	127,000	120	15,240	4,130	41,000	140	5,740	580
1955	180,000	125	22,500	4,118	24,000	160	3,840	330
1956	124,000	92	11,408	2,612	24,000	150	3,600	320
1957	30,000	80	2,400	571	13,000	160	2,080	158
1958	66,000	105	6,930	1,573	12,000	180	2,160	164
1959	85,000	75	6,375	1,396	12,000	130	1,560	117
1960	90,000	125	11,250	2,464	24,000	175	4,200	244
1961	67,000	70	4,690	1,238	11,000	140	1,540	143
1962	94,000	85	7,990	2,924	16,000	145	2,320	297
1963	105,000	95	9,975	2,893	25,000	130	3,250	328
1964	97,000	110	10,670	2,283	15,000	160	2,400	149
1965	88,000	110	9,680	2,197	11,000	160	1,760	107
1966	65,000	110	7,150	1,759	10,000	170	1,700	104
1967	25,000	85	2,125	635	5,000	160	800	41
1968	50,000	80	4,000	1,268	6,000	160	960	73
1969	60,000	85	5,100	1,612	7,000	140	980	83
1970	90,000	100	9,000	2,484	9,000	140	1,260	87
1971	60,000	95	5,700	1,431	7,000	170	1,190	72
1972	36,000	80	2,880	821	Sweet Clover Seed discontinued.			
1973	30,000	90	2,700	1,836				
1974	40,000	90	3,600	2,214				
1975	43,000	95	4,090	2,004	Tall Fescue Seed			
1976	48,000	110	5,280	3,168	45,000	250	11,250	1,688
1977	42,000	95	3,990	3,192	40,000	140	5,600	1,232
1978	60,000	115	6,900	5,624	30,000	150	4,500	990
1979	43,000	95	4,085	3,309	37,000	200	7,400	962
1980	64,000	100	6,400	4,800	27,000	225	6,075	1,094
1981	35,000	90	3,150	2,158	17,000	150	2,550	701
					18,000	185	3,330	816

SEED CROPS, 1919-1981—*Concluded*

	Red Clover Seed				Lespedeza Seed			
1919	12,000	49	588	$235				
1920	14,000	59	826	140				
1921	6,000	65	390	63				
1922	26,000	44	1,144	181				
1923	22,000	32	704	133				
1924	24,000	54	1,296	292				
1925	23,000	49	1,127	248				
1926	17,500	54	945	247				
1927	25,000	43	1,075	246				
1928	10,000	38	380	92				
1929	18,000	43	774	128				
1930	28,000	42	1,176	219				
1931	16,000	49	784	87				
1932	22,000	38	836	68				
1933	17,000	43	731	68				
1934	9,000	32	288	49				
1935	6,000	38	228	34				
1936	5,000	38	190	44				
1937	1,000	49	49	14				
1938	2,000	43	86	14	14,000	105	1,470	$57
1939	6,000	57	340	55	13,000	92	1,200	56
1940	7,000	41	290	33	30,000	190	5,700	205
1941	14,000	49	690	100	46,000	240	11,000	517
1942	15,000	64	960	166	46,000	190	8,700	435
1943	23,000	52	1,200	346	95,000	200	19,000	1,577
1944	34,000	62	2,100	634	171,000	265	45,300	2,038
1945	52,000	52	2,700	818	60,000	175	10,500	499
1946	65,000	49	3,200	1,046	51,000	200	10,200	510
1947	75,000	53	4,000	1,660	29,000	190	5,500	468
1948	57,000	49	2,800	1,226	76,000	270	20,500	1,168
1949	57,000	47	2,700	1,040	72,000	245	17,600	642
1950	72,000	42	3,000	849	40,000	225	9,000	405
1951	5,000	36	180	57	21,000	225	4,700	385
1952	62,000	46	2,852	890	15,000	175	2,625	399
1953	34,000	45	1,530	386	6,500	110	715	122
1954	7,500	45	338	144	18,000	190	3,420	564
1955	27,000	50	1,350	406	28,000	200	5,600	302
1956	20,000	63	1,260	410	9,000	150	1,350	116
1957	7,000	70	490	128	9,000	210	1,890	108
1958	26,000	63	1,638	485	14,000	240	3,360	175
1959	37,000	78	2,886	693	14,000	200	2,800	176
1960	40,000	90	3,600	734	10,000	200	2,000	164
1961	26,000	78	2,028	499	12,000	260	3,120	324
1962	30,000	76	2,280	670	10,000	210	2,100	235
1963	30,000	75	2,250	691	8,000	170	1,360	174
1964	20,000	75	1,500	330	15,000	240	3,600	371
1965	18,000	90	1,620	348	16,000	255	4,080	310
1966	11,000	75	825	196	14,000	215	3,010	298
1967	9,000	80	720	182	14,000	200	2,800	280
1968	10,000	70	700	194	14,000	210	2,940	359
1969	9,000	80	720	229	15,000	250	3,750	371
1970	10,000	85	850	247	16,000	220	3,520	282
1971	11,000	115	1,265	307	14,000	160	2,240	188
1972	7,000	90	630	197	9,000	190	1,710	258
1973	8,000	90	720	302	10,000	230	2,300	805
1974	9,000	85	765	399	7,000	225	1,575	490
1975	13,000	100	1,300	624	8,000	220	1,760	484
1976	14,000	85	1,190	559	8,000	205	1,640	558
1977	9,000	85	765	428	10,000	235	2,350	811
1978	12,000	85	1,020	587	9,000	235	2,115	624
1979	6,000	80	480	250	10,000	230	2,300	472
1980	6,000	75	450	261	5,000	130	650	237
1981	3,500	85	298	209	7,000	245	1,715	437

FRUIT, 1916-1981

Year	Commercial Apples			Peaches			Grapes		
	Bearing acres	Production, million pounds	Farm value (thousands)	Bearing acres	Production, million pounds	Farm value (thousands)	Bearing acres	Production, tons	Farm value (thousands)
1916	.....	.....	.....	.....	3.2	$122	.....	.....	.....
1917	.....	.....	.....	.....	3.2	165	.....	.....	.....
1918	.....	.....	.....	.....	2.4	186	.....	.....	.....
1919	.....	54.4	.....	11,300	10.3	578	2,300	2,700	.....
1920	.....	34.8	.....	10,800	7.8	551	2,600	1,800	.....
1921	.....	4.4	.....	10,300	.5	45	2,800	1,400	.....
1922	.....	71.3	.....	9,900	35.9	1,010	3,000	3,300	.....
1923	.....	52.2	.....	9,500	4.0	214	3,200	2,700	.....
1924	.....	52.2	.....	9,000	9.6	410	3,400	3,000	$270
1925	.....	39.2	.....	8,600	13.7	572	3,600	2,500	212
1926	.....	43.5	.....	8,200	10.0	355	3,700	4,000	340
1927	.....	58.6	.....	7,800	9.4	343	3,800	4,200	315
1928	.....	23.5	.....	7,400	2.7	108	3,900	4,200	336
1929	.....	37.6	$1,962	7,100	12.3	397	4,000	4,600	322
1930	.....	17.2	996	7,500	1.3	49	4,000	3,500	262
1931	.....	57.4	792	6,900	14.6	274	3,900	4,900	245
1932	.....	15.2	1,624	6,900	2.2	55	3,800	4,900	196
1933	.....	39.2	530	6,800	.7	23	3,600	4,200	189
1934	16,400	25.4	708	6,600	5.3	121	3,600	2,700	135
1935	16,400	49.2	1,018	5,800	10.1	252	3,400	4,000	180
1936	15,000	9.1	294	5,500	.8	28	3,000	1,000	60
1937	13,300	51.2	1,001	3,700	8.2	214	2,200	2,600	143
1938	12,800	23.3	509	3,100	1.4	38	2,000	2,200	121
1939	11,400	48.8	817	3,300	5.8	139	1,800	2,900	116
1940	11,100	58.6	1,238	3,100	6.7	154	1,700	3,100	136
1941	9,400	17.7	467	2,300	1.2	30	1,600	2,100	105
1942	6,900	27.5	950	1,100	1.1	43	1,600	2,900	160
1943	6,300	12.1	834	1,500	.1	8	1,600	1,700	162
1944	6,200	15.1	996	2,100	.7	49	1,600	2,100	210
1945	5,700	14.1	998	3,200	3.9	227	1,600	2,300	175
1946	5,400	22.4	1,465	4,200	7.4	370	1,300	1,400	129
1947	5,100	29.0	1,382	4,500	.6	34	1,100	1,400	123
1948	4,600	12.4	641	4,400	7.7	360	1,000	1,700	129
1949	4,100	23.2	836	4,500	8.9	324	1,000	1,600	128
1950	3,600	8.9	502	4,600	5.6	287	900	1,400	120
1951	3,500	18.8	834	4,400	6.2	312	800	1,300	112
1952	3,400	9.0	662	3,900	6.3	304	600	800	78
1953	3,000	7.6	522	3,000	3.8	200	500	600	60
1954	2,800	9.0	546	3,000	6.2	280	400	500	60
1955	2,600	10.0	518	1,900	5.2	265	300	500	60
1956	2,300	2.3	140	1,800	2.3	110	300	100	12
1957	2,200	12.6	500	1,600	7.4	333	300	600	60
1958	2,000	7.8	378	1,600	6.5	324	300	500	60
1959	1,900	10.0	446	1,500	4.8	259	300	400	60
1960	1,800	9.2	481	1,600	7.9	467	300	400	60
1961	1,700	10.5	492	1,800	6.5	367		Grapes discontinued.	
1962	1,700	9.1	459	2,000	4.6	306			
1963	1,600	9.1	450	2,000	2.4	171			
1964	1,600	14.3	687	2,100	8.4	473			
1965	1,600	13.0	508	2,000	7.2	407			
1966	1,700	8.3	322	2,000	1.0	79			
1967	1,700	7.5	452	2,000	3.6	324			
1968	1,700	17.0	911	1,900	6.2	527			
1969	1,800	17.6	815	1,900	9.5	703			
1970	1,800	13.0	536	2,000	8.0	608			
1971	1,700	15.5	986	2,000	6.0	528			
1972	1,800	12.4	658	1,800	1.7	153			
1973	1,800	15.0	1,110	2,000	10.0	1,120			
1974	1,800	14.3	1,372	2,000	2.5	325			
1975	1,900	17.0	1,444	2,000	11.0	1,485			
1976	1,900	11.4	901	2,000	4.0	660			
1977	1,800	16.0	1,408	1,200	9.0	1,350			
1978	1,800	10.0	1,110	1,100	5.0	880			
1979	1,800	15.0	1,340	1,100	5.0	1,250			
1980	1,800	11.0	1,061	1,000	6.5	1,300			
1981	1,900	14.0	1,463	950	6.5	2,079			

FARM FACTS INDEX

PAGE

Agribusiness ... 122-123
Agricultural export shares ... 119
Agriculture Review ... 116
Alfalfa meal production and value ... 123
Alfalfa seed acreage, production and value, by counties ... 202-205
Apples (commercial) production and value, by counties ... 211-212
Barley: acreage, production and value, by districts ... 208
  stocks, all positions, by quarters ... 131
Calves: born, by counties, 1981 ... 218-219
  prices received by farmers, by months ... 243
Cash receipts and realized income ... 239
  percent of total ... 240
Cash rents for pastureland, cropland and all farmland ... 242
Cattle: all cows and calves born, by counties ... 218-219
  beef, prices received by farmers, by months ... 243-244
  commercial slaughter, by months ... 215
  dairy, by counties ... 218-219
  number and value by counties, January 1, 1981 ... 218-219
  number and value by counties, January 1, 1982 ... 220-221
  production, disposition, income ... 216
  value of production, by counties ... 226-227
Cattle on feed, by counties ... 218-221
Chick and poult hatchings and value ... 236
Chickens: layers, number by counties ... 234-235
  layers on hand, by months ... 236
  number and value by counties, December 1, 1980 and 1981 ... 232-233
  production and value ... 214
Commercial feed sales ... 123
Commercial livestock slaughter, by months ... 215
Conversion tables ... Inside Back Cover
Corn: all, acres planted and harvested, by counties ... 170-173
  grain; acreage, yield, production and value, by counties ... 170-173
    irrigated and dryland grain production, by counties ... 178-181
    monthly marketings ... 130
    prices received by farmers, by months ... 243
    stocks, all positions, by quarters ... 131
  silage, acreage, yield, production and value, by counties ... 174-177
Cows: beef, number, by counties, January 1, 1981 ... 218-219
  beef, number, by counties, January 1, 1982 ... 220-221
  milk, number, by counties, January 1, 1981 ... 218-219
  milk, number, by counties, January 1, 1982 ... 220-221
    prices received by farmers, by months ... 243
Crop reporting districts ... 115
Crops: acreage harvested and value, by counties ... 120-121
  acreage, yield, production and value, 1980 and 1981 state summary ... 126
  acres, by size groups ... 132
  county estimates, acreage, production and value ... 142-212
  monthly sales by farmers ... 130
  production, disposition and value, selected crops ... 129
  production maps ... 134-138
  review ... 125
Dairy products: manufactured ... 236
  review ... 229
Eggs: prices received by farmers, by months ... 243
  production and farm value, by counties ... 234-235
  production, by months ... 236
  production, disposition, income ... 217
  production map ... 237
Farm assets and debts ... 241
Farm employment ... 242
Farm income ... 238-239
Farmland values and rents ... 242
Farms: number, size, acres ... 115
  number, by counties ... 120-121
Feed: commercial, sales of ... 123
  feed supplies available for livestock ... 214
  mill feed produced ... 122
  prices paid, by months ... 245

Feeder pigs: prices paid by farmers, quarterly ... 245
Fertilizer: sales ... 124
used on wheat ... 124
Flour production ... 122
Grain storage capacity, commercial ... 131
Greenhouse, nursery and forest products value ... 123
Hatchery production and value ... 236
Hay: alfalfa, acreage, production and value, by counties ... 190-193
all, acreage, production and value, by counties ... 198-201
all other, acreage, production and value, by counties ... 194-197
monthly marketings ... 130
prices received by farmers, by months ... 243
Hogs: commercial slaughter, by months ... 215
number and value, by counties, December 1, 1980 ... 222-223
number and value, by counties, December 1, 1981 ... 224-225
pig crop, by counties, 1980 and 1981 ... 222-225
prices received by farmers, by months ... 243
production, disposition, income ... 216
value of production, by counties ... 226-227
Honey: production and value ... 214
Income from farming, cash receipts, gross and net farm income ... 239
Index numbers: prices received by farmers ... 243
Irrigated acres, by counties ... 133
Irrigated corn production ... 178-181
Irrigated sorghum production ... 166-169
Irrigated wheat production ... 146-147, 150-151
Kansas' rank in U. S. agriculture ... 118
Lambs: prices received by farmers, by months ... 243
Land in farms and number of farms, by counties ... 120-121
Lespedeza seed: acreage, production and value, by counties ... 209
Livestock: number and value on farms, by counties, January 1, 1981 and 1982 ... 218-225
number and value on farms, January 1, 1981 and 1982 ... 214
population maps ... 228
review ... 213
value of livestock produced, 1981, by counties ... 120-121, 226-227
Milk: cow numbers ... 236
cow numbers, 1980 and 1981, by counties ... 218-219
prices received by farmers, by months ... 243
production and value, by counties ... 230-231
production, by months ... 236
production, cash receipts, review ... 229
production, disposition, income ... 217
production map ... 237
Oats: acreage, production and value, by counties ... 182-185
stocks, all positions, by quarters ... 131
Parity prices, U.S. ... 244
Pasture: acres, by counties, 1978 census ... 200-201
value and rental rates ... 242
Peaches: production and value, by counties ... 211-212
Popcorn: acreage, yield and production ... 210
Poultry: number, by counties ... 232-235
poultry on farms and value, 1981 and 1982 ... 214
review ... 229
Precipitation: by counties ... 128
by crop reporting districts, by months ... 127
Prices: farm product, review ... 238
index numbers of prices received ... 243
paid by farmers for production items ... 245
paid for feeds ... 245
received by farmers, by months ... 243-244
Producer owned grain, January 1 ... 131
Production expenses ... 241
Red clover seed: acreage, production and value, by counties ... 206-207
Red meat production and value ... 215
Rye: acreage, production and value, by districts ... 209
stocks, all positions, by quarters ... 131
Sheep: commercial slaughter, by months ... 215
number and value, by counties, January 1, 1981 ... 222-223
number and value, by counties, January 1, 1982 ... 224-225
production, disposition, income ... 217
value of production, by counties ... 226-227

Sorghum: all, acres planted and harvested, by counties 154-157
forage; acreage, production and value, by counties 162-165
grain; acreage, production and value, by counties 154-157
irrigated and dryland grain production, by counties 166-169
monthly marketings 130
prices received by farmers, by months 243
stocks, all positions, by quarters 131
silage; acreage, production and value, by counties 158-161
Soybeans: acreage, production and value, by counties 186-189
monthly marketings 130
oil and meal production and value 123
prices received by farmers, by months 243
stocks, all positions, by quarters 131
Stocks of grain, all positions, by quarters 131
Sugar beets: acreage and production, by counties 210
Summer fallow in wheat production 146-147, 150-151
Tall fescue seed: acreage, production and value, by counties 208
Temperature: average by crop reporting districts, by months 127
Turkeys: production and value 214
Value of production, percent 117
Wage rates: farm 242
Weather data 127-128
Wheat: acreage, production and value, by counties, 1980 142-143
acreage, production and value, by counties, 1981 144-145
cropping practices, by counties 146-153
grindings, production and value 122
monthly marketings 130
prices received by farmers, by months 243
protein content 139
protein map 140
quality survey 139
review 139
stocks, all positions, by quarters 131
varieties 139, 141
weight per bushel 139
Wool: production and value 214
Historical tables 246-264
alfalfa hay and tame hay other than alfalfa, 1919-1981 260
all hay, (including tame and wild), 1909-1981 259
all hay, other than alfalfa, 1964-1981 261
barley, 1866-1981 256-257
corn, all purposes, 1866-1919 250-251
corn, all purposes and grain, 1919-1981 251-252
corn, for silage and forage, 1925-1981 252-253
fruit, 1916-1981 264
livestock, 1867-1982 246-247
oats, 1866-1981 254-255
rye, 1869-1981 257-258
seed crops, 1919-1981 262-263
sorghum, all purposes, grain, 1929-1981 249
sorghums, for silage and forage, 1929-1981 250
soybeans, 1924-1981 253-254
wheat, 1866-1981 247-249
wild hay, 1909-1977 261

INDEX, 65th ANNUAL REPORT

PAGE

Abeldt, Larry ... 89
Able, Bill ... 93, 97
Acker, Duane Dr. ... 80, 89, 97
Aeschliman, Wayne R. ... 76
Agricultural Highlights ... 7
Aicher, L. C. ... 74
Akin, Tom ... 88
Albright, Dennis ... 88
Allen, Senator Jim ... 65
American Egg Board ... 32
American Royal Kansas Farm Family of the Year ... 91
American Soybean Development Foundation ... 34
Anderson, David B. ... 100, 101
Anderson, Robert ... 93
Andras, J. C. ... 90
Animal and Plant Health Inspection Service ... 25, 30
Annual Meeting ... 78
Anstaett, Penny ... 94
Arbuthnot, R. E. ... 97
Armstrong, Ancel ... 97
Aubel, Cliff E. ... 77
Auchard, Fred ... 88

Bailey, Lonnie ... 88
Baker, Jackie ... 89
Bartley, Dr. Erle ... 113
Bartley, Stanley ... 100, 101
Baugher, Earl E. ... 90, 95
Beal, Wes ... 102
Beason, Herb ... 88
Beauchamp, Jack ... 2, 88
Beavers, Warren Lee ... 65
Beck, E. J. ... 88
Beezley, Jerry ... 99
Beezley, Representative William M. ... 65, 97, 99
Beil, Lawrence ... 76
Bell Jr., K. O. ... 18, 19
Bennett, Harold M. ... 77
Benoit, Everett ... 89
Berry, Joe ... 32
Berry, Margaret Ann ... 32
Biery, Freeman ... 3, 63, 84
Biggs, Leonard L. ... 93
Billings, Wayne ... 90
Blair, Jack ... 89
Blankenship, David ... 88
Blecha, Amos ... 88
Blecha, Joyce ... 109
Bliss, F. E. ... 2, 3, 88
Block, John ... 89, 90
Bodenhausen, David ... 88
Boehm, Tom ... 88
Boley, Tom ... 88
Boller, Rick ... 89
Boughton, Ken ... 3, 31, 82
Bozone, Brandon ... 91

Bozone, David 91
Bozone, Shannon 91
Bozone, Shirley 91
Brame, Charlotte 111
Braum, Don M. 76
Brooks, Byron 93
Brooks, Ralph 67
Brunner, Lauren 88
Bryant, Jeff 93
Bryant, Max 88
Bundy, Virginia 88
Bunk, John 113
Burch, Mary 88
Burke, James 77

Carey, Arthur 60
Carlin, Governor John 62, 73, 79, 108
Carlson, Richard 89
Carpenter, Byron 88, 89
Carpenter, James E. 89
Casey, S. T. 88
Casten, Jeff 88
Childs, Rex 108
Childs, Wayne 88
Claasen, Donovan 109
Clampitt, Robert C. "Charlie" 76
Clubine, Roy 88
Coen, Floyd O. 2, 88
Coleman, Harold 65
Colle, Gene and Maurine 99
Compton, W. Stanley 93
Conger, Carl 88
Conrad, Bill 92
Control Division 13, 25
Cook, Tommy D. 93
Coon, Bill 88
Cooper, Craig 88
Corbin, David 88
Cosgrove, David 88
Cox, Worland 88
Crawford, Ralph J. 75
Cress, Darly 102
Criger, Jim 88

Dairy Division 15
Dannenberg, Irving J. 75
Darby, Harry 89
Darnauer, David W. 88, 93
Davis, Larry E. 110
DeLange, Howard 88
DeWeese, Dwane 88
Denton, Winfield 88
Dickinson, Bob 103
Diel, Greg 102
Dikeman, Michael E. 95
Dirks, Laurel A. 93
Dohl, Art 109
Domann, Les 88
Donham, Tony 94

Donley, Debra 93
Doyen, Senator Ross 86
Drees, Duane 88
Dudley, Jerry 33
Duitsman, Mrs. Bertha 74
Duitsman, Ervin 74
Duitsman, Kenneth 74
Duitsman, Thula Mae 74, 78, 79
Duitsman, W. W. "Bill" 70, 73, 74, 78, 79

Ellis, Evan 88
Elnicki, Joseph 93
Engel, Mrs. Cheryl 74
Engle, Max U. 75
Entomology Division 17, 25
Epler, Alvin 2, 3, 85, 88, 90
Epler, Wilma Rauch 90
Ewing, Glenn 88
Experiment Station-KSU 25
Extension Service-KSU 25

Fankhouser, John H. 75
Family of the Year 92
Featherston, Richard 88, 109
Fegel, Vyrl 109
Fehlman, Marvin 100, 101
Fenton, Frederick C. 76
Ferree, Altis 2, 85, 88
Fink, Earl 93
Fink, Lori 92
Finlay, Ron 88
Flint, Jon 65
Foote, Earl 88
Foster, Max 83, 84
Fouts, Bruce Elliott 102
Fox, Lori 89
Frazier, Steve 93
Freeland, Mr. and Mrs. Roy 86
Frisbie, Bob 110
Fulkerson, Karen Kay 112

Gadberry, Robert 80, 82, 86
Gall, James 88
Gallaher, Harold 89
Gardiner, Henry 103
Garten, Frank and Agnes 100, 101
Garwood, Dean 3, 17, 84
Gehrt, Gertrude 88
Geiger, George E. 76
George, Francy 89
Germann, Fred 109
Gibson, Guy 3, 49, 62, 83
Gieseke, Mrs. Mary 74
Giessel, Jay 88
Glickman, Congressman Dan 81, 82
Golladay, Larry D. 65
Good, Don 92
Gooderl, Delman and Mazie 98
Goss, Darrell 109

Gosselin, Lawrence and Susan 112
Gottschalk, Robert 88
Grade A Milk Program 15
Graham, Steven M. 93
Gray, Maurice E. "Jack" 93
Grecian, Kendal 88
Grisier, Robert 88
Grutzmacher, Kirke 88
Gruver, Stanley 88
Guntert, Robert H. 3, 13, 84
Gurss, Gerald D. 65

Haberer, Eric M. 65
Haddan, Douglas W. 102
Haggard, Jennifer 89
Hainsworth, Harold 88
Haley, H. J. 88
Hall, Alpha 88
Hall, Willis 88
Hambleton, Dr. William W. 65
Hamilton, Dean and Norma Jean 99
Hamon, Charles 2, 85, 88, 93
Hansen, Kent and Janis 106
Hanzlick, William P. 65
Harkins, Joseph F. 65
Harms, Galen 109
Harms, Roberta 109
Harra, Keely 94
Harvey, Donald 88
Hasvold, Shelly 102
Hatch, Homer 88
Heersche, George 88
Helmer, Howard 32
Henning, Ralph 93
Henry, Dr. Steve 89
Hereford Breeder of the Year 90
High Plains Study Council 50
Hill, Tom 92
Hjetland, Nancy 88
Holder Jr., Fred 92
Hollbrook, Marcella 103
Holliday, John 88
Holmes, Donald E. 65
Hommon, Dennis 93
Hoover, Steven 88
Horton, Eugene 88
Howe, Dr. John 52

Insect Conditions 18
International Grains Program 36

Jacka, Donald L. 3, 6, 78, 85, 86
Jahnke, Richard 88
Jamieson, Mike 90
Jamison, Dale 90
Jenkins, Clarence 109
Jessee, Darrin 102
Johns, Julius, J. 89
Johnson, Charles 88

Johnson, M. E. 1, 3, 43, 85
Jones, Randy 89
Joonas, Steven 93
Jordan, Carole 3
Judd, Willard V. 93
Junior Grange Prince 94
Junior Grange Princess 94
Jury, Joe 88

Kansas Agricultural Liming Materials Law 13
Kansas Association of County Agricultural Agents 110
Kansas Association of Vocational Home Economics Teachers 32
Kansas Commodity Commissions 33, 35
Kansas Corn Commission 35
Kansas Crop and Livestock Reporting Service 43
Kansas 4-H Family of the Year 100
Kansas Grain Sorghum Commission 35
Kansas Grange King 95
Kansas Grange Queen 95
Kansas Hereford Queen 89
Kansas Honey Queen 111
Kansas Limousin Queen 112
Kansas Livestock Association 33
Kansas Livestock Export Action Committee 33
Kansas Master Purebred Sheep Producer 111
Kansas Meat and Poultry Inspection Act 37
Kansas Pesticide Law 17, 63
Kansas Pork Producers Council 108
Kansas Pork Queen 108
Kansas Poultry Association 32
Kansas Premier Seed Grower 113
Kansas Soybean Commission 35
Kansas Star Young Farm Family 112
Kansas State Fair 32, 105
Kansas Water Authority 50
Kansas Wheat Production 48
Kantola, Nancy 88
Keeler, Garry 110
Kelly, Mildred 96
Kendall, Richard 88
Kern, Kenneth F. 65
Kerr, Fred 86
Kimzey, David 92
Kimzey, Ralph 88
Kistler, Harvey 88
Knoll, Randy 88
Koch, Herman 88
Kreider, James 88
Krenzin, Myron 93
Kurz, Bob 88

Laflin, Bob 97
Lamb, Kent 93
Lane, Tom 88
Leppke, Lyle 93
Lewis, Harry 77
Lickteig, Victor 92
Lister, Edna Rose 77
Little, Stanley 88

Lockner, Allyn 65
Lyons, Frank 92
Lyons, Jan 88

McAnally Enterprises, Inc. 32
McCarty, Dr. M. C. 67
McFarland, Marlin 88
McGregor, Dr. Ronald L. 65
McIntyre, Tom 88
McKee, Miles 95
McQuillan, Joe 88
McWilliam, Edwin 88

Madl, Joseph F. 75
Mai, William V. 88, 93
Manufacturing Milk Programs 16
Marketing Division 31
Marshall, Ray 88
Martin, Dr. Alex 67
Martin, Jack 88
Master Farmers—Farm Homemakers 98
Meat and Poultry Inspection Division 37
Meetz, John 73
Meier, Ewald and Eileen 98
Meredith, Jim 88
Messner, Claude 97
Mexican Livestock Association 33
Mexican Ranch Youth Exchange Program 33
Meyer, Frank J. 76
Miller, Darrol 88
Miller, Ed 88
Mined Land Conservation and Reclamation Board 50
Moody, Ed 94
Mosier, Dr. Jacob E. 112
Mueting, Hubert 88
Munger, Harold 95
Munson, Gaylord 2, 88
Murphy, Lawrence 88
Musil, Adolph 88
Myers, Franklin 88

National Dam Inspection Program 50, 60
National Flood Insurance Program 50, 61
Nelson, Eugene 88
Nelson, Ross 110
Nichols, J. R. 88
Nickel, Floyd and JoAnn 112
Niles, Clair D. 93
Nollette, Kent 88
Norby, Oscar 111
Noxious Weed Law 67

O'Bryan Sr., Joe 77
O'Neill, John 3, 69, 70
Oleen, Glenn 90
Oltjen, Harlan 74, 103
Oswald, John C. 2, 88, 97
Ottman, Leonard R. 76
Otto, Dean 88
Ozbun, Dr. James L. 65

Palkowitsh, Linda Sue 106
Parker, Gary 88
Pascal, Bill and Joyce 98
Paton, Charlyne 103
Patton, Charlene 36
Pearl, John L. 75
Penn, Gary 88
Pera, Mrs. Peggy 74
Perrier, Tom 92
Peter, Lawrence A. 93
Phillips, Bill 73
Plant Disease Conditions 26
Ploger, Jim 88
Polansky, Adrian J. 93
Polled Hereford Herdsman of the Year 90
Porterfield, Maxine 103
Priddle, Harland E. 1, 2, 3, 6, 7, 65
Priddle, Winifred 6
Pringle, J. Richard 89
Pringle, W. J. "Jim" 77
Profitt, Joanna 109

Ramsbottom, Jane 108
Ramsay, Curtis A. 93
Randolph, Chet 81
Ratts, Loyd 93
Raymond, Gene 97
Reinhardt, Richard 85, 88, 90
Rickabaugh, Joe 93
Rickford, Jack 88
Rife, Kenton 88
Rindt, Ralph 109
Roberds, Dale 88
Roberts, Congressman Pat 81, 82, 86
Roenbaugh, J. Byron 88
Rolfs, Leland E. 1, 3, 52
Rorabaugh, Rodney 89
Roth, John 88
Rottinghaus, Eldon 88
Rowley, Brace 3, 15, 83
Royer, George and Joyce 112
Rusk, Arlos 92
Russell II, Steven P. 93

Sack, Dan 88
Saggartz, Michael 93
Sailors, Shirley 109
Sailors, Don 109
Saudi Arabian Ministry of Commerce 71
Saudi Arabian Program 71
Schlickau, Harry 90
Schlickau, John 90
Schlickau, Lois 89
Schmidt, Harvey 88
Schmidt, Mrs. Jean 74
Schmidt, Kay 109
Schmitz, Greg 88
Schmucker, Earl 109
Schnelle, Frances 88

Schnelle, Walter 88
Schowengerdt, Dale G. 75
Schraeder, Vernon 93
Schurle, David M. 2, 88
Schwartz, Douglas 102
Schwartz, Leo 109
Sebelius, Keith 89
Sheppard, Bill 1
Shirley, Dennis L. 93
Shultz, Reynolds G. 90
Sim IV, Thomas 26
Sinn, Leon 8
Sjogren, Jim 93
Smart, Doug 93
Smith, Don B. 103
Smith, Joe 92
Smith, Russell 77
Snapp, Joni 89
Sobering, Dr. Fred D. 65
Sorell, Larry 109
Sorell, Madonna 109
Spaeth, Clifford 93
Spare, Bruce 88
Stanly, Geni 103
State Conservation Commission 50
Statistical Division 43
Steckline, Larry 81, 108
Steeples, Chester F. D. 77
Steeples, Duane 2, 88
Steffey, Monte 94
Stelting, Keith 69
Stewart, Kent 93
Stigge, Otto F. 75
Stockebrand, David 89
Stockman, Bob 88
Stoll, Paul 88
Stout, Merlin 88
Strauss, Christy 100, 101
Strauss, Ron 88
Strickler, Ivan 107
Struble, James L. 76
Suber, Jim 74
Suderman, Leon 93
Sullivan, Alan 88
Swaffar, Paul 89
Swenson, Galen 3
Sylvester, Russ 93

Talkington, Doyle 36, 109
Tanner, Harold 88
Teagarden, Iva 5
Teagarden, John 90
Teagarden, Robert 2, 3, 5, 85
Thomason, Clint 93
Thorne, Mike 93
Toll, Marlin 88
Troth, Ray 88
True, J. Fred 70
Turnbull, Roderick 94

Turnquist, Donald 93

USDA's Science and Education Administration 25
U.S. Feed Grains Council 34
Urich, Laurence 88

Vance, Honorable Judge 52
Vanier, Jack 90
Van Meter, Earl 92
Vogel, John 97
Vopata, Rudolph A. 93

Walter, Wayne 89, 109
Ward, Carson 88
Ward, Howard 88
Water Appropriation Act 51
Water Resources Division 49
Weber, Dr. Arthur D. "Dad" 106
Weber, W. L. "Bill" 75
Wedel, Ronald 111
Weed and Pesticide Division 25, 63
Wehrle, Edna 95
Weickert, Charles 88
Weights and Measures Division 69
West, John Mark 88
Wetta, George 88
Wetta, John B. 77
White, Jere L. 88, 93
White, Roy B. 76
Wiebe, Clark 88
Wiens, Rolland 88
Wilburn, Hugh 88
Wilke, Kenneth M. 3
Wilson, Howard C. 2, 78, 79, 88
Wilson, Leonard 88
Wineinger, Matt 100, 101
Wineinger, Ron 102
Wingert, George 97
Wise, John 88
Wolf, E. Eugene 93
Woodson, Larry 3, 37, 83
Woydziak, Bernard 88
Wright III, Tom 77
Wullschleger, H. D. 88

Yost, Ted 66
Youth Prince 94
Youth Princess 94

Ziegler, Doug 88
Zillinger, Kerry 88

Weights, Measures and Conversion Factors

Bushel weights:
- Wheat & soybeans=60 lbs.
- Corn, sorghum & rye=56 lbs.
- Barley (grain)=48 lbs.: malt=34 lbs.
- Oats=32 lbs.

Bushels to metric tons:
- Wheat & soybeans=bushels x .027216
- Barley=bushels x .021772
- Corn, sorghum, rye=bushels x .025400
- Oats=bushels x .014515

1 Metric ton equals:
- 2204.622 lbs.
- 22.046 hundredweight
- 10 quintals

1,000 kilograms equals:
- 36.7437 bushels wheat or soybeans*
- 39.3679 bushels corn, sorghum, or rye
- 45.9296 bushels barley
- 68.8944 bushels oats

Area:
- 1 Acre=.404694 hectares
- 1 Hectare=2.4710 acres

Yields:
- Wheat=bushels per acre x 0.6725=quintals per hectare
- Rye, corn=bushels per acre x 0.6277=quintals per hectare
- Barley=bushels per acre x 0.5380=quintals per hectare
- Oats=bushels per acre x 0.3587=quintals per hectare

* The 1981 Kansas wheat crop of 305.0 million bushels is equivalent to 8,300,743 metric tons.